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EMOTION AND THE EDUCATIVE PROCESS

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A Report of the
Committee on the Relation of Emotion
to the Educative Process

By
DANIEL ALFRED PRESCOTT, Ed.D., Chairman
Professor of Education
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AMERICAN COUNCIL ON EDUCATION
WASHINGTON, D.C.

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LETTER OF TRANSMITTAL

President George F. Zook
American Council on Education
Washington, D. C.

DEAR PRESIDENT ZOOK:

The Committee on the Relation of Emotion to the Educative Process of the American Council on Education transmits herewith for publication a report of the exploratory study it has made and the conclusions it has reached. To the chairman of the committee, Professor Daniel A. Prescott, is due the form, and in considerable measure the substance of the report, but all members of the committee have contributed by discussion, suggestion, and revision, and cordially approve the report as a whole and join in accepting it as a fair and adequate presentation of the field covered in our conferences and of the suggestions and conclusions derived therefrom.

The original plan of the committee contemplated a report in two sections: one, a general exploratory survey of the field with special reference to the formulation of plans for further research, and two, a report on the progress already made in the creation of instruments and devices for scientific measurement in the field of emotion, to be accompanied by a complete bibliography as an aid to orientation in the field for future workers. This latter report has been prepared under the direction of Professor Frederick H. Lund and has been recommended by the committee for publication as soon as the necessary funds are available.

The report should perhaps be accompanied with a brief historical note as to the committee's origin for those whose attention is now drawn to the subject for the first time.

At a meeting of the Committee on Personnel Methods of the American Council on Education held in Indianapolis, February 1931, an attempt was made to list the more important personnel problems requiring further study and to apportion them to subcommittees for report. "The measurement of emotions" was one of the ten fields named and was assigned to a subcommittee consisting of Dr. John H. MacCracken and Professor M. R. Trabue, then director of the Bureau of Educational Research at the University of North Carolina. This subcommittee presented a report to the central committee of the Committee on Personnel Methods which in turn reported through its chairman, Dean Herbert E. Hawkes, to the Problems and Plans Committee of the American Council at its meeting at White Sulphur Springs, April 11, 1931. At that meeting the project for an exploratory study in the field of emotion was approved for further development. The project was later brought by Dr. MacCracken to the attention of Dr. Ludwig Kast, president of the Josiah Macy, Jr. Foundation, and commended itself to Dr. Kast as supplementary to the research in the field of emotion and health which the Foundation had already undertaken. A grant of \$5,000 a year for two years was accordingly made by the Josiah Macy, Jr. Foundation in 1933 and accepted by the Council to permit the "assembling of a special committee of five to ten qualified persons, resident in this country or abroad, and the employment of one or more experts, to outline and conduct an exploratory study as to the recognition to be accorded emotional factors in the educational process, with special reference to the questions whether emotion has been unduly ignored in the stress laid upon the acquisition of knowledge and development of skill in the acquisition of knowledge; whether education should concern itself with the strength and direction of desires developed or inhibited by the educational process; whether the stress laid on the attitude of neutral detachment, desirable in the scientific observer, has been unduly extended into other spheres of life to the impoverishment of the life of American youth; and, in the event that it should appear de-

LETTER OF TRANSMITTAL

sirable for education to concern itself more directly with the development and direction of emotion, to consider by what devices emotion may be more accurately described, measured, and oriented."

The selection of the special committee to carry on the study was referred by the Problems and Plans Committee to its chairman, Chancellor Samuel P. Capen, and its secretary, Dr. Charles R. Mann, and the committee was organized with Professor Daniel A. Prescott as chairman and Professor Frederick H. Lund as secretary. The first meeting was held in Philadelphia, February 1, 1934. In May 1935 an additional grant of \$5,000 was made by the Josiah Macy, Jr. Foundation and in October 1935 the status of the committee was changed from that of a subcommittee of the Problems and Plans Committee to that of a standing committee of the Council.

In the intervening seven years the subject has not diminished in significance. World political developments, new devices for swaying the emotions of entire nations simultaneously, emphasis on blind mass fervor, impatience with the scientific approach to national problems, all have driven home the lesson that the job of education is not done when knowledge is disseminated and increased. If the scholar, concerned with his primary business of knowledge, fails to deal with the whole man, particularly with the control of passion and the guidance of desire, he may properly be charged with contributory negligence when the democracy becomes either a mob or a regimented army, when freedom to learn or to teach disappears, when the neglected emotions submerge the life of reason, and so force recognition of their claim to a share in the lives of men. '

Respectfully submitted,

Daniel A. Prescott, *Chairman*
Frederick H. Lund, *Secretary*
John H. MacCracken
James S. Plant

Edward Sapir
George D. Stoddard
Vivian T. Thayer
M. Ernest Townsend

Washington, D. C.
October 15, 1937

FOREWORD

THIS REPORT to the American Council on Education by its Committee on the Relation of Emotion to the Educative Process is the outcome of about four years of work, and yet it professes to be only an "exploratory study." The committee has been supported throughout its work by subventions from the Josiah Macy, Jr. Foundation and received an initial orientation from contact with the staff of that foundation which, perhaps, made its methods of work somewhat unique among exploratory committees. Dr. Ludwig Kast, president of the Josiah Macy, Jr. Foundation, and Dr. Herbert Shenton, assistant to the president, expressed the hope when the committee was organized that we might develop procedures which would be helpful to other groups attacking problems involving the practical and coordinated application of knowledge from a number of different sciences and specialized areas of research. In the hope that this has been done, it seems worth while to record briefly the chief policies that we have followed consciously and to mention a few of the difficulties that we have encountered.

The composition of the committee is the first fact to reflect a conscious policy. The task of suggesting research and experimentation that can show the proper role of emotion in the educative process requires the evaluation of present knowledge about emotion as it is scattered through the reports of research in a number of different divisions of science. It also requires a realistic view of what is feasible in the way of experimentation in the different institutions and aspects of education. To meet these requirements a committee was chosen which included persons known to be competent in experimental psychology, in psychiatry, in anthropology, in sociology, in child

study, in educational psychology and educational research, in experimental education, in educational philosophy, in the education of teachers, and in educational administration. The attempt also was made to include persons who had a practical understanding of elementary education, secondary education, and higher education. Budgetary limitations and other considerations limited the number of members and the geographical area from which they could be chosen. The committee is composed as follows:

John H. MacCracken, formerly associate director, American Council on Education

James S. Plant, M.D., director, Essex County Juvenile Clinic, Newark, New Jersey

Edward Sapir, Department of the Social Studies, Yale University

George D. Stoddard, director, Child Welfare Station, State University of Iowa

Vivian T. Thayer, Ethical Culture Schools, New York City

M. Ernest Townsend, president, New Jersey State Normal School, Newark

Frederick H. Lund, Temple University, *Secretary*

Daniel A. Prescott, Rutgers University, *Chairman*

Given a committee whose members have such a diversity of training and interest, the question of the best means of using the knowledge and insights of each one arises immediately. The possibility of having each member prepare a separate section or chapter of the report was rejected at once for fear that it would prevent the necessary integration of the report. It is too difficult to procure the meeting of minds and the creative emergence of new concepts when each committee member has a responsibility which he must fulfill through the printed page. In such a case each person would have to write for the professional group of which he is a member and in which he must maintain status. The final decision of the committee was to charge the chairman with the responsibility of writing the report and even of deciding what should be included. This did

not limit the usefulness of individual committee members or prevent them from attacking the problem constructively; rather it set them free to deal with available data and practical considerations with complete candor and frankness. It made rivalry impossible and prevented the clash of conflicting concepts from arousing personal emotions. Certainly, no member of the committee agrees with everything that appears in the report.

On the other hand, this method of preparing a report submerges and renders invisible the rich contributions which each committee member has made, and makes it impossible to give the recognition and acknowledgment that is due them. It has the further limitation of rendering the expression of some concepts, which are clear in the mind of an individual, unclear as they are presented in the report through the language of another person. On the basis of these facts, it is apparent that the various committee members have shown a most amazing tolerance and the highest professional ideals in permitting the report to appear in its present form. They have been alike in a completely unselfish sharing of their knowledge and original ideas and in a frank and constructive criticism of all portions of the report. They have prevented the chairman from making many unwarranted generalizations and from ignoring many demonstrated facts. No individual committee member can be blamed for any error, omission, or fallacious interpretation, and the group as a whole must be credited for any helpful formulations which appear.

As soon as the committee began to grapple with the problem of searching for the proper role of emotion in the normal development of personality, it discovered the necessity for consulting with a wider group of experts than it could include within its own ranks. To give an initial impetus to these broader contacts the Josiah Macy, Jr. Foundation volunteered to provide for a three-day conference at Bar Harbor, Maine, and such a conference was held in August 1934. The gratitude of the committee to the outstanding persons who joined the

committee in that conference, who presented valuable papers and provided stimulating discussion is expressed here. This conference opened the minds of the members of the committee to many considerations which might otherwise have escaped them and doubtless gave rise ultimately to insights which we now find it impossible to credit to their originators because they have been so thoroughly assimilated into our own thinking. Brief reports were published in the autumn of 1934 describing the program of this conference.¹

After about eighteen months spent in studying the literature, the group realized that much of the best contemporary thought in the areas of interest to the committee has not yet found its way into publications. Accordingly, the chairman was commissioned to spend the better part of a year visiting the various universities, clinics, and research centers in which significant developments of knowledge are occurring. Naturally, the limitations of budget and time made it impossible to visit all persons and institutions doing important work, but a fair sampling of the different types of research set-ups were examined. The chairman wishes to record here his gratitude for the gracious hospitality and cordial cooperation which he experienced everywhere. The committee also wishes to acknowledge its debt to the various institutions and persons who permitted the examination of their data and methodology. So many constructive suggestions about needed research and experimentation were received that it is not possible to acknowledge them all separately.

The report includes numerous direct quotations and the committee wishes to express its appreciation to the following individuals, periodicals, and publishers for permission to reprint: Clark University Press, Macmillan Company, Houghton Mifflin Company, Kegan Paul, Trench, Trubner & Co., Ltd., Liveright Publishing Corporation, Harcourt, Brace and Company, Inc., Harper and Brothers, Charles Scribner's Sons,

¹ "Conference on Emotion and the Educative Process," *School and Society*, XL, No. 1030, 396.

FOREWORD

Columbia University Press, Harvard University Press, Ohio State University Press, University of Chicago Press, Van Nostrand Company, W. B. Saunders Company, Nervous and Mental Disease Publishing Company, *American Journal of Psychology*, *The Journal of Psychology*, *The Journal of Educational Psychology*, *Comparative Psychology Monographs*, *Childhood Education*, *Psychological Monographs*, and *The Journal of Applied Psychology*. The chairman wishes to express his personal appreciation to the many individuals who have given of their time and thought through conferences, discussions, and correspondence. He is more than grateful to the individual members of the committee and to the officers of the American Council on Education for their forbearance, consideration, and cooperation. All have been most helpful in moments of confusion and discouragement as well as during the more constructive periods of work. Appreciation is due also to Mrs. Anne Stannert, for criticism of the manuscript, to Dr. Jaffray Cameron and to Ruth Sharrett Prescott for checking quotations and assisting in the final preparation of the manuscript.

DANIEL A. PRESCOTT
Chairman

August 1937

CONTENTS

	PAGE
Letter of Transmittal.....	v
Foreword.....	ix
I INTRODUCTION.....	i
II BASIC AFFECTIVE PHENOMENA.....	10
Feelings.....	10
Emotions.....	17
Emotionally Conditioned Attitudes.....	36
Importance of Affective Phenomena for Education.....	47
III PHYSIOLOGICAL BASIS OF AFFECTIVE EXPERIENCE AND BEHAVIOR.....	49
Relation of Affective Behavior to Biochemical Equilibria.....	49
Mechanism of Cortical Control of Affective Reac- tions.....	53
Essential Biochemical Equilibria in Gradients... ..	54
Relation of Organic Gradients between Cerebral Cortex and Hypothalamus to Emotional Be- havior.....	57
Implications for Education.....	58
IV PATTERNING AND TRAINABILITY OF AFFECTIVE BE- HAVIOR.....	62
Emotion as an Aspect of Instinctive Behavior... ..	63
Bridges' Concept of the Gradual Differentiation of Behavior Patterns.....	70

	PAGE
Emotion as a Function of Blocked Behavior.....	75✓
Emotion as a Disorganization of Behavior.....	76
Lewin's Dynamic Theory of Emotion.....	77
Rationalization of the Various Hypotheses....	79
Relationship between Affective Behavior and Personal Goals.....	80
Genesis of Attitudes.....	80
Attitudes Define Areas of Emotionality....	88
Aesthetic Experience and Attitude Patterning..	89
Development of Aesthetic Appreciation and Expression.....	90
Conclusion.....	93
 V AFFECTIVE MATURITY.....	94
What is Affective Maturity?.....	94
Criteria of Affective Maturity..	97
Implications for Research.....	100
Affective Maturity and Value Concepts....	104
Role of Education in Producing Affective Maturity.....	108
 VI BASIC PERSONALITY NEEDS AND CONDITIONS WHICH FRUSTRATE THEM.....	110
The Concept of Need.....	111
Physiological Needs..	114
Social Needs.....	116
Ego and Integrative Needs.....	118
Permeability of Personality....	125
Implications for Education.....	126
Unwholesome Conditions.....	127
The Obligation of Education.....	135
Conclusion.....	138
 VII AFFECTIVE BEHAVIOR AND CONTEMPORARY SOCIAL INSTITUTIONS AND PROCESSES.....	139
Social Functions of Education.....	139

TABLE OF CONTENTS

	PAGE
Revolutionary Effect of Science upon Life.....	141
Some Contemporary Social Problems.....	142
The Task of Formal Education.....	156
VIII THE INFLUENCE OF AFFECTIVE FACTORS UPON LEARNING.....	159
Nature of the Learning Process.....	159
Influence of Affective Factors on Learning.....	161
The "Laws" of Learning.....	161
Motivation and Learning.....	162
Mood on Entering the Learning Situation.....	166
Influence of Affect Experienced during Learning..	167
Affective Consequences of Learning.....	176
Temperament of the Learner.....	178
Conclusions.....	179
IX AFFECT AND EDUCATION.....	181
Objective of Report Scientific, Not Promotional..	182
Educationally Significant Findings.....	183
Theoretical Implications of the Findings for Edu- cation.....	193
X ASPECTS OF EDUCATION NEEDING STUDY..	197
Understanding the Affective Characteristics of Pupils.....	197
Educativeness of School Curricula.....	206
Nature of Curricular Experiences.....	212
Appropriateness of Curricular Experiences to Per- sonality Needs of Children.....	214
Appropriateness of Curricular Materials to the Abilities of Children.....	230
Motivation of School Tasks and Curricular Ex- periences.....	234
Psychological Appropriateness of the Organization of Material.....	239
Administrative Considerations and Conditions under Which Schools Must Be Operated.....	243

	PAGE
XI PERSONNEL PROBLEMS IN EDUCATION.....	252
Does the Profession Satisfy the Personality Needs of Teachers?.....	253
Maladjusted Teachers as a Serious Personnel Problem.....	265
Nature of Personal Relationships.....	267
Personal Relationships in Educational Institutions	269
Characteristics of Teachers.....	272
Functional Basis of Pupil-Teacher Relationships.	276
Problems Developing from Interpupil Relation- ships.....	278
Affective Deviates.....	280
Conclusion.....	280
XII GENERAL CONCLUSIONS.....	282
Physiology and Psychology of Affective Behavior.	282
Research in Child Development.....	285
Research and Experimentation in Education....	288
Bibliography.....	295
Index of Names.....	307
Subject Index.....	313

I

INTRODUCTION

Emotions in Childhood

One name suggested another, and they recalled memories, odors—the smell of chalk in musty schoolrooms; of Mr. Prouty's harness shop where we used to go for whiplashes; of rain and muddy streets. Little gusts of boyhood emotion swept across the senses. I saw the shadows of naked branches on the snow in the moonlight, and my mother going down a stairway with a lamp in her hand and the darkness creeping up the walls behind her.¹

.

I can remember as if it were yesterday, the day when I studied in my geography about a divide, and realized with a thrill of joy that Kingman's field was such a thing. I raced home from school. I ran first to the southern spring, then to the northern and told myself that each was the headwaters of a river! It was my hour to stand silent upon a peak in Darien. My childish imagination followed those trickles in the grass, till my body was borne in a great boat on their mighty waters and my ears heard the sound of the sea. Geography for me had suddenly become alive, tingling—had suddenly become poetry.²

.

My father had assured me that God would signify His anger, if anyone, in a Christian country bowed down to wood and stone. I cannot recall why I was so pertinacious on this subject, but I remember that my father became a little restive under my cross-examination. I determined to test the matter for myself, and one morning, when both my parents were safely out of the house, I prepared for the great act of heresy. With much labor, I hoisted a small chair onto the table close to the window. My heart was now beating as if it would

¹ James Norman Hall, *On the Stream of Travel* (Boston: Houghton Mifflin Co.).

² Walter Prichard Eaton, *My Own Peak in Darien* (New York: Scribner's).

leap out of my side, but I pursued my experiment. I knelt down on the carpet in front of the table, and looking up I said my daily prayer in a loud voice, only substituting the address "Oh Chair!" for the habitual one.

Having carried this act of idolatry safely through, I waited to see what would happen. It was a fine day, and I gazed up at the white sky and expected something to appear in it. God would certainly exhibit his anger in some terrible form, and would chastise my impious and willful action. I was very much alarmed, but still more excited; I breathed the high sharp air of defiance. But nothing happened. . . .³

"THE LIFE OF CHILDHOOD—STRANGE AND MYSTIFYING" is the caption under which the anecdotes above appeared in *The Reader's Digest* in December 1935. Literary people always have understood the vivid emotional experiences of childhood. They have portrayed them with an accuracy and poignancy that reawakens in each of us experiences of our own. Most of us would be too shy to recount the numerous significant things that happened to us; yet we know that they were moments which counted. They were the moments when concepts crystallized, concepts never to be forgotten. Our first sense of racial belonging or of social outsidership, our first feeling of personal power or of capacity to endure, an awesome conviction of the imminent presence of God, boundless faith in some loved one, breathtaking glimpses of beauty in landscape or music—these experiences were vivid with life, tingling with feeling. Such moments happened on the least expected occasions and sprang out of events which doubtless seemed only trivial and commonplace to the adults around us. The days of children now are equally rich in feeling.

Adults, too, whether or not they like to admit it, count their time from one point of high feeling to another. Old people recount their earlier life as adventure. Men and women arrange their affairs to throw themselves in the way of vivid experiences. How many brilliantly successful motion picture films or

³ Edmund Gosse, "Experiment in Idolatry," in *Biographical Recollections* (New York: Scribner's).

novels are without their moments of strong tension or even violence? The masterpieces of the opera, of drama, and of literature deal with tragic themes so poignantly presented as to bring tears to the eyes of millions. Great athletic spectacles draw "million dollar gates" if they promise vivid and stirring scenes. Many people will tolerate anything rather than boredom with its absence of feeling; if no other way to emotion is open they contrive to get into trouble or they adopt a "vice." Broken homes, "fatal missteps," spectacular failures, and the "vices" of comfortable civilized urban life are the conclusion of events which began as no more than the search for mild excitement.

What can be said of the life of the child at school? Is it rich in feeling? Has it the tang of exciting discovery, the testing of the stuff that personality is made of, the thrill of feeling that here one swirls in the stream of real life? Should school life have these qualities? Admitting the disturbing and disintegrating effects of much misdirected search in adulthood for vivid experiences, what should be the policy of education? Should children be trained to do without excitement? Should they be schooled to deal with reality in intellectual terms? Or is there an opportunity to enrich life from beginning to end by guiding children into and through high moments of vivid exciting experience?

Background of Present Study

For several years the Problems and Plans Committee of the American Council on Education has been concerned about questions like those above. The youthfulness of criminals, the tremendous problem of juvenile delinquency, the general level of theme in contemporary motion picture and dramatic productions, the contents of the mass of periodicals found on our newsstands all gave them cause for thought. America, where we expect a new wonder of engineering or industrial inventiveness each day, has not been distinguished by equal genius in the arts or by a comparable general rise in culture. No other

nation has extended educational opportunities so widely, no other nation has "put so many of its children through school." But are the results altogether happy? Popular education is being called upon for an accounting, and a candid facing of the facts is expected. Recognizing these facts, the Problems and Plans Committee applied to the Josiah Macy, Jr. Foundation, of which Dr. Ludwig Kast is director, for a grant with which to undertake "An Exploratory Study of the Relation of Emotions to the Educative Process." A grant of \$5,000 yearly for two years was made in 1933 and the same grant was renewed for one year in 1935, in order to make possible the completion of this report.

It was not until March 1934 that the personnel of the committee was completed and a beginning made in the consideration of the role of affective factors in educative experiences.

Objectives

The objectives of the study, as set forth in the original statement, were to ascertain

The recognition to be accorded emotional factors in the educational process, with special reference to the questions: (1) whether emotion has been unduly ignored in the stress laid upon the acquisition of knowledge and the development of skill in the acquisition of knowledge; (2) whether education should concern itself with the strength and direction of desires developed or inhibited by the educational process; (3) whether the stress laid on the attitude of neutral detachment, desirable in the scientific observer, has been unduly extended into other spheres of life to the impoverishment of the life of American youth; and (4) in the event that it should appear desirable for education to concern itself more directly with the development and direction of emotion, to consider by what devices emotion may be more accurately described, measured, and oriented.

Scope

Early in its discussions it was evident to the committee that it could not fulfill the intention of the Problems and Plans Committee if it limited itself to a study of emotions in their narrowly

defined psychological sense. The Problems and Plans Committee very clearly was interested in the part played in education by all affective experiences. Feelings, emotions, and all attitudes with emotional components are factors which affect our interpretation of life and consequently our behavior. Therefore, all of these must be considered. While the word "emotion" is continued in the title because it occurred in the original request for a grant, the terms "affective experience" or "affective factors" have been substituted throughout the context because they describe more broadly the three aspects of experience that are studied. Some further definition of terms and of areas of study is perhaps desirable and will be found in the next chapter.

The various committee members undertook surveys of the literature in their respective fields of special interest, but they found only neglect to give consideration to the role of affective factors in the educative process. A great deal of experimental material describing the nature of the affective processes was uncovered, but the implications of this material for education or for child rearing have not been determined experimentally, though some speculative writing exists. A basic ignorance of the influence of affective factors on learning still exists even among psychologists. Such insights as have been secured by clinical psychologists into the influence of emotion on personality development have not been assimilated into school practice. The role of affective experiences in developing aesthetic appreciation or in nourishing those constructive social motives upon which good citizenship depends has been only superficially probed by experiments.

Since experimental validation of the implications for education of contemporary knowledge about the affective processes has yet to be accomplished, it is obvious that this report cannot contain any authoritative dicta which should be followed by school people. The committee has not felt itself competent to speak *ex cathedra* about so important a matter. Nor has the committee felt that it would be valuable to turn to educators,

nor yet to psychologists, to ascertain by questionnaire techniques what they consider to be the proper role of affective factors in the educative process. Such a sampling of mass ignorance or bias could command only superficial thinking and would be of little help to school people.

The committee has judged its first task to be a careful and detailed examination of the literature for the purpose of ascertaining what knowledge about affective experience and behavior may safely be assumed to be valid fact. When this information has been assimilated, we shall perceive certain areas in which knowledge is insufficient or in which the interpretation is controversial. Plans for research and experimentation then must be developed in order to throw light upon these areas of ignorance. At the same time, plans for experimentation in schools must be formulated. These should look toward the scientific validation of educational methods and materials in the light of existing knowledge about affective processes.

This report cannot and need not present a full résumé of the experimental findings of affective psychology. The selected bibliography appearing at the end will direct the reader to excellent summaries and also to source material. For our committee Dr. Lund has prepared a résumé of experimental studies of emotion in animals and men with special attention to measurement and to laboratory techniques. His report may be published separately. The present report will include only enough material to show the direction in which psychological theory tends, for the purpose of charting out the major research and experimental areas. Also, it will indicate some weaknesses in courses in educational psychology, as this subject commonly is taught to prospective teachers.

Affective Experience and Education

The earlier statement that the role of affective experiences in the educative process is without experimental validation does not imply that there exist among educators no hypotheses about the parts which such experiences should play. Sharpest

controversies among school people have arisen over this very matter and certain strongly debated issues still persist.

One such group of issues will appear upon any attempt to define "emotional maturity" and to place the achievement of this maturity among the major aims of education. To some, "maturity" implies the de-emotionalizing of most of life by meeting it on a purely rational basis. Others see maturity in the finding of a cause, in the complete sacrificing or losing of the self in some worthy purpose which has a highly emotionalized value for the individual. A third group would judge maturity by the capacity of the individual to control or inhibit the expression of emotions under all circumstances. Still another group would call mature only those whose taste, whose aesthetic sensitivity had been developed to a very high degree, whose feelings and emotions had been trained to find expression at high levels of intensity and who would find complete frustration unbearable. Which of these groups has the right of it? We do not know. Ultimately, it may be found that Stoicism and Epicureanism have constitutional bases, that persons are born into one camp or another among these conflicting views; but for the present, our scientific knowledge is so limited that philosophy must continue to play a large part in determining the objectives of education with regard to the training of affective behavior. Most school practice will remain a compromise. Yet we dare not beg this question for, if we do, we shall resign ourselves to a most non-functional type of education. Should not the school be concerned with the strength and direction of the desires developed by its pupils?

A second group of issues clusters about the problem of educational methodology. Exponents of complete freedom write as though it were seriously limiting a child's personality development to direct or choose the experiences that he is to have; others imply that unpleasant disciplinary measures to enforce safe or reasonable behavior are detrimental to "sound" character; and there are those who hold that children never should undergo the experience of failure, of frustration, or of

deprivation in anything which they really earnestly wish to do or have. Without doubt, these points of view developed in answer to excessive and unwholesome regimentation, discipline, and repression of originality and individuality. These were all too common in earlier educational practice. But currently some psychiatrists, mental hygienists, and experienced school people are saying that the fruits of complete freedom, full self-expression and continuous success may be attitudes and concepts which are dangerous both to personality unity and to effective social adjustment because they do not represent adequate evaluations of reality.

A third group of controversies occurs between persons whose views are essentially moralistic and those whose concepts might be called psychiatric. These controversies are concerned with the manner of treatment of children, whose behavior does not conform to accepted patterns and standards. Protective or fantastic lying, truancy, daydreaming and social withdrawal, failure to conform to the rules of the school, stealing, and sexual play may be regarded as willful and malicious wickedness or as the inevitable results of situations which the child cannot meet successfully. The continuous frustration of the need of children to feel that they belong, the continuous failure to accomplish what is demanded in school, or the handicap of some personal oddity may be regarded as justifying strong emotional protest behavior. Others believe that these conditions fail completely to justify the breaking of an established moral or social principle.

Another issue centers around the question of indoctrination. Pressure groups continuously are attempting to introduce into the schools emotion-producing study materials and teaching methods. These are designed to develop in teachers and children sentiments that are favorable to the points of view of the pressure groups and antagonistic to differing ideas and ideals. This is a most difficult matter to control, as studies of textbooks and propaganda methods employed from the elementary school through the university have shown. The question bears upon the types of emotional experience that it is whole-

some for children to undergo—whether emotionalized loyalties should grow out of an increasing appreciation of social values or whether they should be acquired early and strengthened regularly by cleverly prepared conditioning experiences devised by interested groups. A related concern of school people is the effect upon teachers of the pressure and of the insecurity resulting from the constant surveillance by individuals and groups who seem almost eager to harm them unless their teaching has a particular flavor or sentiment. This issue involves broad questions of social philosophy which can get only partial answers from the psychological effects of a given policy.

Role of Philosophy

The committee is aware of the limitations of its own knowledge and thinks of its present report as a mere beginning. It recognizes that schools now are rendering important service both to the emotional adjustment of children and to the enrichment of their affective experiences. But it is convinced that a long period of research and experimentation must be completed before anyone should dare speak with confidence regarding the *proper* role of affective experiences in the educative process. The initial effort must be devoted to increasing our knowledge of the psychology of the affective life and to experiments in applying our limited knowledge through educational agencies. Moreover, the committee has the conviction that school people should be working out the philosophical and social considerations that shall determine the manner of applying such knowledge as may be uncovered. Emotions and emotionalized attitudes may be used as effectively for regimentation and demagoguery as for the development of worthy social motives or the furtherance of democratic procedures of social adjustment. Emotions are stirred as much or more in hatred, violence, and repression as in the collective striving of free people for a richer life and higher spiritual goals. It is essential, therefore, that a well-thought-out social philosophy underlie all attempts at educational experimentation involving strong sentiments.

II

BASIC AFFECTIVE PHENOMENA

IT IS THE INTENTION of the committee to evaluate the importance for education of the three major aspects of affective life: feelings, emotions, and emotional attitudes. Certain broad questions of educational implication have been raised; a description of the basic affective phenomena involved will reveal certain psychological issues which should influence the direction of research and experimentation.

FEELINGS

Anyone who reads much of the Wittenberg Symposium on Feelings and Emotions¹ will understand that psychologists are still groping for a genuine understanding of those more or less delicate nuances of pleasant and unpleasant feeling which seem to accompany all experience and behavior. Dr. G. G. Beebe-Center has performed an excellent service in gathering and arranging a great mass of experimental material bearing upon this topic,² but he was not able to bring a fully ordered understanding out of the chaos. For the purposes of the present report, it would be of much interest to know on an experimental basis more about the following: (1) the relation of feelings to sensations; (2) the physiological conditions and mechanisms underlying pleasantness and unpleasantness; (3) the relationship between the meaning of the situation for the individual and the hedonic tone evoked; (4) the influence of hedonic tone on the different types of learning; and (5) the bearing of feelings upon behavior.

¹ *Feelings and Emotions; The Wittenberg Symposium*, M. L. Reymert, editor (Worcester, Mass.: Clark Univ. Press, 1928).

² G. G. Beebe-Center, *Pleasantness and Unpleasantness* (New York: Van Nostrand, 1932).

No historical account of the development of theories of feeling will be presented in this report. A few of the contemporary theories will be mentioned to indicate the distance from certainty that educators find themselves when endeavoring to evolve practical programs from contemporary psychological concepts about feeling.

Troland's theory implied a very direct and important relationship between feeling and learning. Specifically, Troland held that "the affective intensity of any individual consciousness is proportional to the average rate of change of conductance in the synapses, the activities of which are responsible for consciousness."³

Change in the conductance of synapses . . . is determined by two factors: (1) by two opposed types of sensory processes, namely, beneception and noci-ception, the former increasing conduction and the latter decreasing it; (2) by exercise (increasing conductance) and disuse (decreasing conductance). Such change definitely alters the neural responses of the organism to stimulation, increase or decrease in the conductance of synapses evidently making the paths involving these synapses more liable or less liable to subsequent nervous conduction. Thus the neural correlates of pleasantness and unpleasantness may be considered to influence learning by stamping in and stamping out neural patterns.⁴

An important aspect of Troland's theory is that he regarded both pleasantness and unpleasantness as related intimately to biological advantage and disadvantage, to the ongoing physiological equilibria of the organism.⁵ In this general concept, though not in the mechanisms described, Troland agreed with Lehmann who "suggests that the physiological correlate of hedonic tone is the degree to which assimilation counteracts dissimilation during the activity of any group of central neurones."⁶

³ L. T. Troland, "A System for Explaining Affective Phenomena," *Journal of Abnormal Psychology*, XIV (1920), 377.

⁴ Beebe-Center, *op. cit.*, p. 405.

⁵ L. T. Troland, *The Fundamentals of Human Motivation* (New York: Van Nostrand, 1928), pp. 284-300.

⁶ Beebe-Center, *op. cit.*, p. 403. Referring to A. Lehmann, *Die Hauptgesetze des Menschlichen Gefühlslebens* (Leipzig, 1914), pp. 166-68.

C. J. Herrick postulates a definite and simple physiological basis for pleasantness and unpleasantness, but does not show the relationship between this and the general welfare of the organism. He maintains:

Normal discharge . . . of definitely elaborated nervous circuits resulting in free, unrestrained activity is pleasurable. . . . Conversely the impediment to such discharge, no matter what the occasion, results in a stasis in the nerve centers, the summation of stimuli and the development of a situation of unrelieved nervous tension which is unpleasant until the tension is relieved by the appropriate adaptive reaction.⁷

Nafe has also developed a theory about feeling which is attracting wide attention. He writes as follows:

The affective experiences may be wholly or partly bodily in origin. At moderate intensities they are vaguely felt and poorly localized. . . . Pleasantness, as a psychological experience, consists of a pattern of discrete bright points of experience in the general nature of a thrill, but usually is much less intense. It is vaguely localized about the upper part of the body. Unpleasantness is similar, but characteristically duller, heavier, more of the pressure type of experience, and is localized toward the abdomen or the lower part of the body.⁸

Landis draws the following conclusions from a study of literature relative to feeling and emotion:

(1) Feeling is certainly not a simple, easily identified mental experience. (2) Feeling has never been successfully identified with any specific physiological occurrence or patterns of reaction. (3) Feeling may be either (a) the protopathic-epicritic element of sensation, (b) facilitation or inhibition in neural activity, (c) presence or absence of pain, (d) presence of reactions governed by the autonomic nervous system, (e) the energy balance of the organism at any particular time, or, (f) a derived experience based on thalamic neural integration. (4) Psychologically, feeling, in a sense of pleasantness or unpleasantness,

⁷ C. J. Herrick, *An Introduction to Neurology* (2d ed.; Philadelphia: Saunders, 1918), p. 286.

⁸ J. P. Nafe, "Pressure, Pain and Temperature Senses," in *Handbook of General Experimental Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1934), p. 1076.

appears as a unique experience but one which may be the product, or by-product, of many other experiential processes.⁹

If one were permitted a very broad generalization based upon an examination of the above and other hypotheses about feelings, it would be that these affective experiences are closely related to the physiological state of the organism. Feelings might be called the indicators of whether or not conditions are optimum for the maintenance of those dynamic physiological processes that are characteristic of the organism. This is probably as far as one should go. Feelings range from unpleasant to pleasant as behavior is blocked or facilitated; they vary with the quality and intensity of sensory stimulation, they grow out of organic conditions in the viscera and are changed as these functions are modified through autonomic stimulation. As Claparède has pointed out,¹⁰ they are influenced by value concepts which relate to the situation. To account for all these aspects of feeling, only one foundation is wide enough—the general physiological welfare of the organism, or more specifically the dynamic biochemical equilibria which must be maintained within certain definite limits. Without doing violence to experimental findings available at present, feelings may be taken to be indicators of how well the basic equilibria are being maintained.

INFLUENCE OF FEELINGS ON BEHAVIOR

From ancient times, the awareness of satisfaction or of dissatisfaction, the feeling of the desirableness or undesirableness for the individual of the conditions in which he finds himself, has been thought to have a motivating and directing effect on behavior. Fechner tried to state this as a scientific law, saying that dissatisfaction implies instability and satisfaction stability, and that behavior is always directed away from insta-

⁹ C. Landis, "The Expressions of Emotion," in *Handbook of General Experimental Psychology*, *ibid.*, p. 344.

¹⁰ E. Claparède, "Feelings and Emotions," in *Feelings and Emotions; The Wittenberg Symposium*, *op. cit.*, pp. 124-39.

bility and towards stability. Karl Bühler has extended this principle by pointing out that the end sought is not always stability in the sense of relaxation—as in a boa constrictor after a big meal—but often is action, the function of organs and muscles ready for reaction—as in the play of children.¹¹ This seems reasonable. The human organism is innately equipped and prepared for action, its full measure of development comes only as a result of action. Then it is not illogical to expect that action would involve pleasure when not unduly fatiguing and that constant inaction would be unpleasant because not favorable to the maintenance of the dynamic equilibria of all the body areas.

The literature has been searched for objective evidence about the influence of feeling on behavior. Such evidence is scanty. It is found principally in connection with studies of fatigue and of the causes of decrements in the speed and accuracy of work. Thorndike has reported several experiments in which subjects doing hard intellectual work over periods of two and four hours periodically reported how satisfying the work was to them. In each case, he found that both speed and efficiency remained relatively constant during the whole period of work, but that satisfyingness decreased steadily. He says, "The work grows much less satisfying or much more unbearable, but not much less effective."¹² Similar experiments by Poffenberger likewise showed a steeper and more rapid decrease in feelings of comfort than in actual production.¹³ Robinson and Robinson reported little diminution in mental efficiency, as measured by laboratory tests after subjects had undergone a night of enforced insomnia, but a marked decrement in feeling tone as shown by ratings of their own tiredness.¹⁴

¹¹ K. Bühler, "Displeasure and Pleasure in Relation to Activity," in *Feelings and Emotions; The Wittenberg Symposium, op. cit.*, pp. 195-99.

¹² E. L. Thorndike, *Educational Psychology* (New York: Teachers College, Columbia Univ., 1914), III, 69.

¹³ A. T. Poffenberger, *Applied Psychology* (New York: D. Appleton, 1927).

¹⁴ E. S. Robinson and F. R. Robinson, "Effects of Loss of Sleep," *Journal of Experimental Psychology*, V (1922), 93-100.

E. S. Robinson has reported the above experiments in his discussion of the "Work of the Integrated Organism" in the *Handbook of General Experimental Psychology*. In discussing the implications of these studies, he quotes the following from Thorndike:

These facts support the general doctrine that the effect of lack of rest is far greater upon whatever is the physiological basis of interest, willingness or tolerability, than upon the physiological basis of quality and quantity of product produced. Or, in other words, the mechanisms determining the mind's achievement are left able to do their customary work, but in such a condition that their customary action is less satisfying, so that (except for extrinsic motives) the individual would relax, intermit or abandon the action in question.¹⁵

Robinson then continues:

We should not assume, however, that loss of satisfyingness is the only cause of decrement in production, simply because it appears so promptly and so markedly. And we should keep in mind the possibility that loss of satisfyingness may, itself, be partially due to loss in productive efficiency. The subject who is naming colors or solving arithmetical problems suffers from other factors than eye strain, cramped posture and general boredom. He suffers also, because the color names and answers simply fail to come forth with customary alacrity. In such a case, we have a loss of satisfyingness which is caused by a loss in productive efficiency rather than the reverse.¹⁶

Robinson feels that

The empirical study of discomforts incident to continuous work remains highly important and much more work needs to be done along the lines marked out by Thorndike and Poffenberger; the clean-cut differences between decrement in satisfyingness and in output proves that point; but we are hardly in a position to explain all or nearly all decrements in output as due to decrements in satisfyingness, simply because the latter are steeper in the earlier stages of the work.¹⁷

¹⁵ E. L. Thorndike, "The Curve of Work and the Curve of Satisfyingness," *Journal of Applied Psychology*, I (1917), 265.

¹⁶ E. S. Robinson, "Work of the Integrated Organism," in *Handbook of General Experimental Psychology*, *op. cit.*, p. 600.

¹⁷ *Ibid.*, p. 601.

EDUCATIONAL IMPLICATIONS

There are hardly enough significant data to justify the elaboration of any very complicated or extensive educational implications. Nevertheless, it has been shown that the condition of the basic energy equilibria of the body affect both the feelings and work output of the individual. This, in turn, implies that rest, food, temperature, ventilation, furniture, all have an important relationship to motivation and to the rate of learning to be expected from children in school.

Bühler goes even further than this with his concept of feeling as "function pleasure." He maintains that the joy that comes with activity, with the use of muscles and abilities, is biologically useful because it insures the repetitions of behavior which habituate children in physical coordination and brings them to more complex and effective forms of movement. He even goes to the point of ascribing to this "pleasure in function" the greatest role in stimulating human beings to invent, to discover, to undertake all sorts of creative activities.¹⁸

If this point of view has even partial validity, it is quite significant for educational methodology, greatly favoring the activity school against the traditional one.

Psychiatrists and clinicians give a more functional view of feelings than do the more academic psychologists. They see feeling as more directly motivating and directing behavior. They find patients going to no end of trouble to avoid unpleasant feelings which they have experienced before. Behavior categories such as "compensation," "rationalization," and "identification" are really descriptions of ways by which unpleasant feelings are avoided or pleasant feelings are sought. Both the psychiatrists and the psychoanalysts have developed an explanation for all this in terms of the energy resources of the body. Possibly, it would be helpful, then, to recognize that behavior emerges basically from body dynamics which press the individual to action at the same time that they give rise to feeling states. When we describe the child as hungry, restless,

¹⁸ Bühler, *op. cit.*, pp. 195-99.

disobedient, suffering from an inferiority complex, or as the victim of suppressed libido, actually we are describing a physiological state which has two aspects: a dynamic drive toward action and a feeling of which the child is aware. Perhaps we cannot describe accurately the role played by feelings in motivating and directing behavior, but we do know that they are close to the basic physiological processes which underlie all behavior. For this reason, they merit experimental study in connection with school situations.

EMOTIONS

Emotions are the second type of affective experience to be described. They are defined usually as inherited pattern reactions involving extensive visceral behavior and intense feelings, as open to simple conditioning, and as differentiated in quality according to the dominance of the sympathetic or the parasympathetic segments of the autonomic nervous system. The tendency of courses in educational psychology during recent years has been to follow a modified behaviorism and to list fear, rage, and love as the major emotions with little or no treatment of other emotional states.

An examination of the experimental literature shows such a treatment of emotions to be a great over-simplification which definitely misleads persons who are seeking an understanding of child development. In the first place, the various emotions are not well-defined reaction patterns, in which each emotion has its own peculiar pattern, capable of being described and recognized. Instead, many different emotions are attended by common physiological readjustments apparently designed to provide for the increased energy output demanded by the developing situation. The patterns of visceral behavior vary somewhat from situation to situation, but these patterns are by no means all organized at birth, nor do they appear entirely as the result of genetic maturing. They appear to emerge functionally as a result of the interplay of situation and effect. In other words, experience, or learning, accounts not only for the great

variety of stimulation which can cause emotions but also for many of the patterns of behavior shown in emotions.

Another fallacy recurring in courses for teachers is that which treats a given emotion as though it had the same pattern of physiological behavior at all levels of intensity. Instead of this, at least three levels of intensity of emotion should be distinguished and the literature shows clearly that the physiological concomitants of each level differ sharply from those of the other levels. Georges Dumas distinguishes these three levels of emotional behavior in terms of level of shock.¹⁹ He calls them "*les petits chocs*," "*les chocs moyens*," and "*les grands chocs*." Each will be discussed separately in this report under the headings "mild emotion," "strong emotion," and "disintegrative emotion." While Dumas deals with emotional shocks separately from such categories as fear, anger, and joy, the experimental data everywhere in his books support the view that all emotional phenomena are adjustive reactions of the body, attempting to adapt the body economy as a whole to the demands of the situation. These adjustive reactions vary with the intensity of the shock or emotion experienced more significantly than they do from category to category of emotion. The phenomena which characterize all alike are alteration of the body economy, changes in visceral function to accomplish this, and intense feelings which are associated both with the interpretation of the situation and with awareness of systemic sensations. Since this point of view differs in important respects from that which generally is found in the literature, some experimental material in support of it must be included in the following pages.

MILD EMOTION

Dumas cites from many sources extensive and convincing experimental evidence showing that light emotional shocks ensuing from stimulations such as the threat of a prick, erotic

¹⁹ G. Dumas, *Nouveau Traité de Psychologie* (Paris: Felix Alcan, 1932), Vols. I-III.

reading, breaking glass, the showing of cooked beefsteak, threat of pinching, joking, and unexpected touching of the skin of the back cause a moderate increase in all normal physiological functions. There is an increase in gastric and salivary secretions, in the peristalsis of the stomach, in contractions of the bladder walls,²⁰ in pulse rate and blood pressure and in respiration, with the breathing becoming a little more superficial.²¹ In other words, the effects of mild emotions are tonic to physiological processes in general. It should be noted here that this moderate intensification of function is mediated in some instances by the parasympathetic segments of the autonomic nervous system and in other cases by the sympathetic segment.

It is probable that the splendid experimental elucidations by Cannon²² and by Bard²³ of the essential antagonism of the sympathetic and the parasympathetic segments of the autonomic in strong emotions has caused many psychologists to forget that normal body function is controlled by an equilibrium between stimulations from both these segments. The chief organs of the body are not controlled exclusively by the parasympathetic under normal conditions and exclusively by the sympathetic in times of stress. Just as skeletal muscles are set in opposed groups around joints, and movement is secured by the relaxation of one group and the simultaneous contraction of the other, so the sympathetic and parasympathetic innervate organs simultaneously. The function of the organs is determined by the nature of the equilibrium maintained between these antagonistic innervators.^{24,25} It is perfectly possible, then, for all organs to be affected tonically, even though this increase in function is mediated in some by the parasympathetic and

²⁰ *Ibid.*, II, 325-38.

²¹ *Ibid.*, pp. 299-310.

²² W. B. Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage* (2d ed.; New York: D. Appleton, 1929).

²³ P. Bard, "The Neuro-humoral Basis of Emotional Reactions," in *Handbook of General Experimental Psychology*, *op. cit.*, pp. 264-311.

²⁴ Cannon, *op. cit.*, pp. 32-33.

²⁵ Dumas, *op. cit.*, pp. 322-23.

in others by the sympathetic. This is exactly what seems to occur in the case of mild emotions, whether or not they are so sudden as to constitute light shock.

American experimenters often have noted the same phenomena but, because they have never been particularly concerned with the intensity of the emotion generated, usually have reported the results as contradictory and difficult to understand. Frequently, Cannon has shown the tonic effect on the gastro-intestinal tract of many sorts of pleasant stimulation, but he has not used mild, unpleasant stimulation on his animals. They have uniformly been stimulated to strong, unpleasant emotion, as by restraint of breathing, restraint of action or confrontation by menacing antagonists.²⁶ Brunswick reported that distress, surprise, and startle usually gave rise to increased gastro-intestinal tonus in human subjects, but got contradictory results with fear, relief, and envy.²⁷ Landis, after reviewing the literature, in addition to performing a considerable amount of original research, concludes: "It seems that excitement, startle, or mild facilitation of activity creates a favorable balance so that visceral activity is facilitated."²⁸

A point particularly to be noted in connection with the tonic effects of mild emotion is that the tonic condition is produced by unpleasant as well as by pleasant stimulations, and that it persists for quite a time after the stimulation has ceased. Distress, threats of pinching or pricking, startle stimuli such as breaking glass or unexpected tactual stimuli generally are classed as unpleasant, while the presentation of food to a hungry subject with no opportunity to eat also might be regarded as a frustration. A tonic influence of the emotion is found in all such cases. Doubtless, it is this tonic effect which is sought by young people and children riding in fast autos or in roller coasters or when they go to motion picture "thrillers." Mild

²⁶ Cannon, *op. cit.*

²⁷ D. Brunswick, "The Effects of Emotional Stimuli on the Gastro-intestinal Tone," *Journal of Comparative Psychology*, IV (1924), 19-79, 149-205.

²⁸ E. Landis, "The Expressions of Emotion," in *Handbook of General Experimental Psychology*, *op. cit.*, p. 335.

excitement is sought by most people and these researches give ample justification for maintaining that its effects are physically desirable rather than undesirable. This supports the practice of accompanying meals with soft music, attractive decorations, and gay conversation; it perhaps explains the sense of physical well-being that accompanies dancing, participation in games, the attendance at recreational spectacles, the experiencing of beautiful landscapes or seascapes, the moderate excitement that accompanies any aesthetic experience, and the initial stages of love-making.

Educators may find justification here for making vivid experiences an integral part of many phases of the educative process. Certainly the schools need not remain the drab places which they too frequently are. Children may enjoy safely the excitement of participating in a wide range of moderate emotional experiences without being seriously upset, though a word of caution based on individual differences in temperament is doubtless in order.

STRONG EMOTIONS

Conditions producing strong emotions tell a different story; they have the nature of crises. Situations producing strong anger, fear, joy, or the sexual orgasm demand vigorous action and are accompanied by the most vivid feelings. To meet them, the body economy must be reorganized, the physiological resources of the organism must be mobilized and integrated for this immediate action. In contrast, strong emotion may also occur in crises where action is made impossible by the nature of the situation itself. Despair, grief, remorse, and passive joy are illustrations, and in these emotions the change in body economy is of the depressing or conserving type.

Action Emotions

Cannon, in his monumental experiments with animals, has shown how beautifully the body resources are mobilized for effective action in the case of anger and fear.²⁹ A heavy dosage

²⁹ Cannon, *op. cit.*, Chaps. I-XIV.

of adrenalin goes into the blood stream followed by a release of glycogen from the liver, an increase in the clotting power of the blood, and the release of large numbers of red corpuscles from the spleen. Along with this goes a redistribution of the blood supply from the viscera to the large muscles, together with an increase in blood pressure and in the rates of heartbeat and respiration. The heat-regulating mechanisms are also activated and spastic contractions of the intestines may occur. These changes appear to be produced by increased innervation of vital organs from the sympathetic section of the autonomic nervous system. In such emotions, the sympathetic segment overrides or dominates the cranial and sacral segments in the control of visceral functions. This dominance is secured as a result of release of neural currents from the thalamic area of the brain.³⁰

The sexual emotion presents an interesting illustration of the modifications in body economy which mark the shift from mild to strong emotion. The preliminary love play is illustrative of mild emotion showing tonic effects throughout the organism such as an increased rate of heartbeat and increased salivation. As the emotion achieves greater and greater intensity, involving greater and greater expenditures of energy, the dominance of the sympathetic segment of the autonomic nervous system is extended. This is evidenced by the dry mouth, the enlargement of the pupils, thrills accompanied by goose flesh, and finally, by the orgasm itself. Since this emotion is usually pleasant throughout its various levels of intensity, it demonstrates that pleasantness is not a function of cranio-sacral control of the viscera and unpleasantness a function of sympathetic control, but that these qualities of emotion are related to the deeper meaning of the situation for the individual of which we do not know the physiological basis.

In the case of active joy also we have evidence of heightened physiological activity some of which, at any rate, must be the result of increased innervation from the sympathetic nerves.

³⁰ Bard, *op. cit.*, pp. 264-311.

There is increased rate and strength of heartbeat, increased rate of respiration, an average CO₂ production of 350 cc. per hour per kilogram against a normal average production of 250 cc. per hour per kilogram and a greater potential strength available for use than in any other emotion, as shown by dynamometer experiments.³¹ Actual data concerning the effect of strong joy upon the digestive processes have not been found, but Landis reports that "it may also be shown that intense excitement of a pleasant nature will inhibit digestion while mild pleasantness will tend to facilitate activity."³² Altogether, the data seem sufficient to indicate that in all of the strong emotions described thus far, whether pleasant or unpleasant, the advent of a critical degree of intensity is accompanied by increasing sympathetic dominance for the sake of a better mobilization of the energy resources of the body.

Depressing Emotions

In contrast with the above, despair and passive grief result in depressed pulse rate and blood pressure and in slow, superficial, and irregular breathing.³³ Dumas reports an average CO₂ production in these cases of 110 cc. per hour per kilogram in contrast to the normal average of 250 cc. per hour per kilogram. He reports available strength to be at a minimum as shown by dynamometer trials. It is very difficult to tell whether this is because the body condition does not permit a greater expenditure of energy or whether the total situation has reduced motivation nearly to the zero point. There are no laboratory reports available of the effects of despair on digestion, but general observation leads to the opinion that the appetite is light, suggesting that the dominance of the parasympathetic system is not complete throughout the viscera, although it is having a strong influence on heart action and respiration. This is supported by the lowered temperature of the skin and a frequent cyanose condition of the hands.

³¹ Dumas, *op. cit.*, II, pp. 393-417.

³² Landis, *op. cit.*, p. 334.

³³ Dumas, *op. cit.*, II, 383-417.

Taken altogether, the picture presented by strong emotions is one of a considerable and extensive reorganization of the body economy. This reorganization has the appearance of an integrated mobilization of resources for action, strongest in the case of fear, anger, and the sexual emotion, and less strong, but very marked, in the case of active joy and of rebellious grief. In contrast, despair and passive suffering are accompanied by a conservative or depressing change in body economy, reducing all activity to a minimum.

In all cases of strong emotions, the physiological reactions which occur last longer than in the case of mild emotions. Their effects are much more drastic and dramatic, and the crisis interferes with some of the normal visceral functions, notably with digestion, assimilation, and elimination. These emotions are all detrimental to health, then, if experienced too frequently or continuously; but they are not detrimental if their occurrence is below the critical frequency and duration acceptable to the individual. They are, in fact, adjustive, being appropriate reorganizations of the body economy, well adapted to meet the energy demands placed upon the body by the situation. Once the crisis is past, the body will readjust itself in a perfectly normal way. On the other hand, if the emotions continue through too long a period or reach an unendurable level, the third degree of intensity, disruptive emotion, appears. Any careful study of emotion, then, must concern itself with several categories of emotions, and with several levels of intensity of emotional behavior described in terms of the physiological concomitants of these emotions as well as in terms of the types of situations evoking them.

Situations Causing Strong Emotion—Startle

Numerous different types of functional situations give rise to the release of the thalamic neural discharges which set off strong emotions. The first of these to be discussed, because it is the simplest, is any sudden, intense, and unexpected change in stimulation. Watson demonstrated these startle or "fear"

stimuli with young children, and numerous other experimenters also have demonstrated their potency with both human and animal subjects. Dumas has summarized these studies in excellent fashion.³⁴ Loud noises, loss of equilibrium and flashes of light have been used commonly. Landis has shown that tactile and olfactory stimuli may be equally effective.³⁵ In fact, almost any combination of stimuli, if they change rapidly and unexpectedly enough, and if they are strong enough in relation to stimuli already playing upon the individual, can produce strong emotion. Naturally, the potency of a stimulus depends upon the condition of the individual who receives it and upon the total situation. Unexpectedness also is a very important factor.

Situations Causing Strong Emotion through Cortical Interpretation

It is probable that strong emotions seldom last long when produced by startle stimuli unless the cortical evaluation of the total situation shows it to contain elements of apparent danger. Fear can spring up just as genuinely from insight that danger exists, based upon a summation of stimuli, as it does from startle and this illustrates a second and more important type of situation giving rise to strong emotion. In modern society, strong emotion is far more frequently aroused by evaluating a situation and finding that it contains some danger to life or wealth or purpose than by direct stimuli actually threatening a person's welfare. So it comes about that the cortex releases the emotional stimulations from the hypothalamus more often than do rude sensory experiences.

In this connection, it should be noted that genuine danger need not be present to cause terror. If the experience background of the individual is such as to make him believe that danger is present, the emotion is as strong and as genuine as though the beliefs represented reality. Conversely, real danger may not be appreciated in some situations where it actually

³⁴ Dumas, *op. cit.*, Vol. II, Book III, Chaps. III and IV.

³⁵ C. Landis, "Studies in Emotional Reactions, II; General Behavior and Facial Expression," *Journal of Comparative Psychology*, IV (1924), 447-509.

exists, and so no fear will be felt—witness the casualness with which most of us risk our lives in automobiles.

Situations Causing Thwarting

Washburn has described a third type of situation which excites strong emotion, remarking that emotion may occur “when the energy of a drive is prevented from discharging into movements which lead towards a restoration of the physiological balance.”³⁶ This has variously been termed thwarting or frustration. It may originate in diverse ways varying from physical restraint to internal mental conflict. For example, some elements of a situation may initiate a pattern of behavior in an individual only to have other factors inhibit it. Another situation may be the cause of mental conflict by initiating two or more behavior patterns that are incompatible with each other. Again, a situation may repeatedly require of an individual behavior which he cannot perform because he lacks earlier experience to prepare him or because of fatigue or physical condition. Cannon has often mentioned thwarting as a natural cause of anger³⁷ and the psychiatric literature is replete with illustrations of strong emotions, caused by frustration, mental conflict, and failure.

Situations Causing Joy

Washburn also says that “joyful emotion may occur when an excess of energy is released at the end of a period of unsatisfied drive.”³⁸ Ribot claimed that joy results from finding a new and easy adaptation to a problem situation, from ending a period of privation, discomfort, or sorrow, and most often from a combination of these circumstances. Dumas seems to concur.³⁹

³⁶ M. F. Washburn, “System of Motor Psychology,” in *Psychologies of 1930*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1930), p. 84.

³⁷ Cannon, *op. cit.*, p. 244.

³⁸ Washburn, *op. cit.*

³⁹ Dumas, *op. cit.*, II, 362-437.

Situations Causing Depressing Emotions

Passive sorrow, grief, or despair seem to arise from frustrations experienced under conditions which force the individual to feel that he is completely powerless in the face of circumstances. Such emotions occur upon the death or other loss of a person who is dearly loved or upon whom one has been very dependent. They may be occasioned by very spectacular or humiliating failure or defeat. Perhaps most of us tend to consider such emotions as most common in adults, yet clinical evidence shows that they are common among school children under appropriate conditions. Whether grief and despair give rise to the active or depressive types of physiological reactions probably depends upon both temperament and experience. This sort of emotion deserves a great deal of study with adolescent subjects, for it is suspected of being a rich cause of many brands of delinquency and also of pseudo-feeble-mindedness.

Frequent Complex Causations of Strong Emotions

It is worth reiteration that an adequate insight into the causes of strong emotions cannot be achieved by thinking in terms of a simple, automatic, inciting stimulus. It is rare that emotions are aroused in this manner. Something more akin to the psychiatric analysis of the meaning of the situation for the individual, in terms of his own needs, wishes, and purposes is needed to gain an understanding of the real causes of emotion. Perhaps Lewin's manner of analyzing the valences of the forces operating within the person's psychological field will answer the purpose.⁴⁰ At any rate, school people seldom will acquire any real insight into the strong emotions of their pupils while they continue to think of fear and frustration only in terms of the stimulus value of an immediate situation. Naturally, with such thinking a child will appear to be rebellious, stubborn, or withdrawing to an unreasonable extent when in reality he is endeavoring to avoid loss of status, to

⁴⁰ K. Lewin, "Environmental Forces," in *Handbook of Child Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1933), Chap. 14.

build up a sense of belonging to his class group, or to maintain his confidence in himself in the face of what appears to him to be a situation with which he cannot cope.

One of the most serious defects in the present teaching of educational psychology seems to be the tendency to teach that emotions are a function primarily of a simple stimulus, and that they are automatically extended by conditioning to anything occurring at the same time. If this law operated mechanically at all times, most of us would be in constant terror or constantly angry. We need to understand how certain elements in a situation come to be selected as significant, as relevant, as having meaning for the individual, and that the individual responds to the meaning of the situation as he evaluates it, rather than to the summation of specific stimuli. To accomplish this understanding, the dynamic factors of personality must be considered. This problem will be discussed at greater length in connection with the gradual differentiation of the patterns of emotional behavior and in connection with the situations that are unhygienic for wholesome personality development.

Dangers From Strong Emotions

If mild emotions are tonic, stimulating, and contributory to a zest in life, such is certainly not true of strong, unpleasant, emotions. Cannon devotes a whole chapter to the "emotional derangement of bodily functions."⁴¹ He shows how all manner of digestive disorders, of heart diseases and circulatory difficulties, and of derangements of glandular functions result from strong emotions. Dr. H. Flanders Dunbar recently has published a large volume dealing with the same topic. She demonstrates that disorders affecting the bones, the skin, the sense organs, the genito-urinary system, and the respiratory system are produced by strong and persistent emotions as are the serious derangement of the gastro-intestinal and cardio-vascular systems and the disorder of endocrine functions mentioned

⁴¹ Cannon, *op. cit.*, pp. 241-67.

above. She demonstrates conclusively that medicine must concern itself with the conditions causing the emotions as well as with the symptoms and effects of the particular physiological malfunctioning discovered.⁴²

The implication for education is apparent. The schools dare not meet with unconcern the cases of frequent and upsetting strong emotions which are found among children. They must be concerned with righting the causes of these emotions if that is possible, they must be careful to adjust the routine and work of children suffering such upsets, and above all they must be watchful that they do not contain the exciting causes of such emotions in their own inflexible or unreasonable program or treatment of children. Always, there is the danger that the critical point of tolerance for strong emotion will be passed in the children concerned and that illness will ensue.

DISINTEGRATIVE EMOTIONS

Dumas cites a third level of emotion which he calls "*les grands chocs*."⁴³ These are the grave cases of physical and mental pathology caused by emotions of overpowering strength or of unsupportable duration. They are seen in soldiers, physicians, and persons made ill by scenes of carnage and disaster. They are found among the patients of psychiatrists and the occupants of psychopathic wards. This report need not deal with them, except to note that under a maximum intensity or undue prolongation of emotion a more or less complete disorganization of physical and mental functions may occur. One may find loss of coordination, uncontrollable trembling, loss of control of the muscles regulating the emptying of the bladder and colon, or complete paralysis. Serious glandular disorders may ensue; or the disorganization may be largely mental involving more or less complete loss of touch with reality. Hallucinations, hysteria, and psychoses of all orders of severity sometimes develop

⁴² H. Flanders Dunbar, *Emotions and Bodily Changes* (New York: Columbia Univ. Press, 1935).

⁴³ Dumas, *op. cit.*, II, 316.

out of these disorganizing emotions. In general, the picture is one of a thoroughgoing breakdown of normal function with hospitalization immediately necessary.

Conflicting Evidence

It should be pointed out here that the psychological literature contains much conflicting evidence about the physiological effects of emotions as well as about the patterns of behavior usual under emotional conditions. This may well be due to the failure of the experimenters to take into consideration the level of emotionality reached by their subjects. The evidence given by Dumas, as previously described, would lead one to expect very different behavior from the murderers examined by Luria shortly after the commission of their crime and from students secure in the psychological laboratory of a university in America as they submit to the "light emotional shocks" of noises, erotic pictures, foul odors, or unpleasant words. A good deal will be made of this distinction between degrees or levels of emotionality as the report progresses. The important point, perhaps, is that *a continuum of affective experience exists, varying from vague feelings of pleasantness or unpleasantness up to profound experiences which greatly disturb both mental and physical functions*. At various critical points in this continuum adaptive modifications of the body economy occur, varying according to the functional demands of the situation. It is essential to distinguish the level of affective experience involved when discussing the reactive phenomena characteristic of the state or when considering the influence of the affect upon learning, upon the higher mental processes, or upon behavior.

HUNGERS, APPETITES, AND AFFECTIVE STATES

Cannon has the following to say about appetites and hungers:

The constancy of body temperature, the constancy of the acid-alkali balance in the blood, the constancy of blood sugar and numerous other conditions which are of prime importance for natural existence are assured by agencies which operate correctively whenever there is significant deviation from the normal state. Among these

conditions is adequate provision of food and water. . . . It is the function of hunger and thirst as automatic stimuli to make certain that the reserves of food and water are maintained.⁴⁴

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Also, in this category may be classified the asphyxia of air hunger, the tensions of sex hunger, pain, and possibly also the discomfort of fatigue and the unpleasantness of confinement or physical restraint. Each of these states is associated with an impulsive factor; each one more or less vigorously spurs or drives to action; each may be so disturbing as to force the person who is afflicted to seek relief from the intolerable annoyance or distress.

On the other hand, experience may condition behavior by revealing that the taking of food, drink, or exercise is accompanied by an unanticipated delight. Appetites for the repetition of these experiences are thus established; the person beset by an appetite is tempted, not driven, to action—he seeks satisfaction, not relief. It is not to be supposed that the two motivating agencies—the pang and the pleasure—are as separate as they have been regarded in the foregoing discussion. They may be closely mingled; when relief is found, the appetite may simultaneously be satiated.⁴⁵

This is a nice distinction between hunger and appetite which Dr. Cannon has made. It bears directly upon the matter of level of affectivity, too. The hunger or thirst experienced under usual conditions by the average person can be little more than a “feeling” of the desire for food or drink. But after fasting for a day or two a person’s physiological need would reach a point at which the odor of a juicy steak could become a “mild emotional shock.” Then as Cannon says, “if the requirements of the body are not met . . . hunger and thirst arise as powerful, persistent, and tormenting stimuli which imperiously demand the taking of food.”⁴⁶ Thus, long deprivation creates a condition of physiological need coupled with frustration that is favorable to strong emotional outbursts. Hunger riots, hold-ups, and

⁴⁴ W. B. Cannon, “Hunger and Thirst,” in *Handbook of General Experimental Psychology*, *op. cit.*, p. 247.

⁴⁵ *Ibid.*, p. 262.

⁴⁶ *Ibid.*, p. 262.

window-breaking to secure arrest are reactions frequently enough seen as a result.

No doubt, somewhat the same affects develop in connection with sex hunger, but here the strength of social taboos is so great as to complicate the expression of the affect. Sometimes, the individual even refuses to admit his hunger to himself and represses or buries his desire so thoroughly that its presence can be known only by the bizarre mental and emotional twists it produces. Masturbation is probably the commonest and most simple answer to deprivation. Perversions of various sorts may be another result of unsatisfied hunger, but accidental learning and constitutional factors play a significant role here. In general, more or less successful substitute outlets seem to be sought by both young people and adults, and even married persons, when for some reason they cannot function freely.

This area deserves serious research. The causes of sexual maladjustments in marriage merit study, and experimental research in pre-marital and early post-marital training should be undertaken. The avenues by which erotic information is acquired by children and young people should be better known and should be evaluated for their accuracy, effectiveness, and hygienic value. There is reason for concern about the influence on the mores of delayed marriage due to economic factors and to the necessity for long training before entering certain occupations. A wider knowledge is needed concerning the influence of improved contraceptive methods, of the increased consumption of alcoholic beverages by girls, and of the mobility afforded youth by automobiles, even though these are social factors about which little can be done directly. It may be necessary to modify certain curricular materials because of these factors, either to prevent school materials from appearing naïve to the point of silliness or the better to prepare young people for situations which they will inevitably meet. There is need to know more certainly the effectiveness of various activities by which the sex drive may be sublimated previous to overt experience in order that programs of athletics, aesthetic expression, and

recreation may be provided which will capture the genuine interest of young people.

Appetite for Emotion

Whether hunger for emotional experiences arises as a result of the lack of opportunity for vivid experience and whether appetites for thrills are the result of too much exposure to excitement offer further opportunities for study. The avidity with which some persons read exciting books, attend thrilling movies, and participate in various gambling schemes seems to indicate a real hunger for excitement. The degree to which many people seek for the bizarre, the strange, the weird, or even for actual danger as in the case of the soldier of fortune, the explorer, and the gangster, emphasizes the importance of the question of appetite. The element of uncertainty or hazard in business, in some newspaper work, in missionary activities, in airplane piloting, and in various other occupations seems to have real appeal for certain people; but it is not known whether this is a matter of temperament or of experience. Effective guidance awaits more real knowledge.

THE JAMES-LANGE THEORY

Long and fruitless has been the controversy as to whether emotions are the awareness of the new physiological conditions consequent upon the visceral changes induced by the situation or whether they are characteristic feelings produced directly by the action of the stimulating conditions upon the central nervous system. Cannon has demonstrated that characteristic reactions showing emotion occur in animals whose viscera have been totally separated from the central nervous system, and he infers that the intense feelings that accompany emotions are caused by neural discharges from the thalamus into the cortex. By this fact, and by numerous other experiments, he feels that the James-Lange theory has been disproved.⁴⁷ Dumas, after a careful examination of the facts, accepts Cannon's conclusions

⁴⁷ Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage*, Chap. XVIII.

and states that emotions are not peripheral but appear to be due to thalamic discharges. He admits, however, that he has no clear insight into the physiology involved in these thalamic discharges and particularly in their relation to cortical action.⁴⁸

CONTROL OF EMOTIONAL BEHAVIOR

Cannon has remarked upon the dangers involved in habituating oneself to emotional behavior, to giving away freely to the expression of emotion.⁴⁹ As previously mentioned, very serious physical derangements may ensue from prolonged and frequent strong emotion. Naturally, the most important procedure for preventing strong emotion is avoidance of the stimulus or situation which evokes it. This may be done by purposely avoiding the stimulus situation or by a psychoanalysis which goes far enough to be convincing, in case a genuine reason for the emotion no longer exists and response is a conditioned one. Reconditioning of conditioned emotional behavior also can be accomplished by standard techniques.^{50,51} Moreover, it is possible to inhibit the conditioned response by extraneous concomitant stimulation strong enough to divert the attention. On the other hand, as Cannon has pointed out, sometimes the emotion-producing stimuli are realities, cannot be avoided or explained away, and recur as memories of past events which cannot be undone. The genuineness of such emotions does nothing to eliminate their harmful effects if they persist and it would be a great boon to mankind if some way of avoiding their recurrence or effects could be found.

Practiced Relaxation as a Means of Emotional Control

Jacobsen, at the University of Chicago, has worked for some years on the possibility of avoiding the continuance of strong

⁴⁸ Dumas, *op. cit.*, II, 422-40

⁴⁹ Cannon, *op. cit.*, pp. 264-66.

⁵⁰ M. C. Jones, "The Elimination of Children's Fears," *Journal of Experimental Psychology*, VII (1924), 382-90.

⁵¹ M. C. Jones, "A Laboratory Study of Fear: The Case of Peter," *Pedagogical Seminary*, XXXI (Dec. 1924), 308-15.

emotions by extended practice in progressive relaxation. He writes:

Since conditions of nervousness, including highly emotional states, have been found to involve muscular contraction, it seemed quite logical to look in the direction of relaxation for a means to treat these nervous conditions. But when the average person who is nervous or emotional lies upon a couch, his emotional state does not necessarily subside. Indeed, in many instances, he feels an increase of the disagreeable experience. . . . If merely lying down frequently proves ineffective, how shall we produce extreme muscular relaxation? The best method that I have been able to find seeks to accomplish this, not in the course of days, but in the course of months. . . . The patient is shown how to relax extremely each of the muscle groups until the whole body has been covered. During practice with any particular muscle group, he relaxes it farther and farther each moment, past the point where the muscle seems to him to be perfectly relaxed. . . . After the individual has been trained to achieve complete or almost complete muscular relaxation lying down, he is trained in the relaxation of various muscle groups while sitting and even while engaging in various daily occupations. . . . Clinical results suggest that if he is troubled by emotional states, such as fears, or worries, it is possible to reduce these conditions by teaching him to relax muscular contractions which appear when such fears or worries are present. Likewise, clinical studies of nervous heart disorders and of spastic conditions of the esophagus and intestines . . . indicate that as habits of relaxation become developed, the symptoms disappear. Objective tests, including x-rays, also point to the diminution of the underlying disorder. . . . We cannot teach the patient directly to relax the muscles of his internal organs; but laboratory studies on the esophagus suggest that as the trained subject relaxes his voluntary muscles, there follows a corresponding diminution in tension of the involuntary.⁵²

It would be interesting to find out whether young children in preschool, kindergarten, or elementary grades can be taught this technique of progressive relaxation. If it were possible they might be fortified to withstand better the later anxiety and

⁵² E. Jacobsen, "Control of Emotion Through Relaxation," in *The Child's Emotions* (Univ. of Chicago Press, 1930), pp. 91-103.

turmoil which they will experience, and a training in the genuine control of the emotions would be feasible.

HIGHER MENTAL PROCESSES AND EMOTION

F. N. Freeman suggests that the part played by the cortical evaluation of situations in effecting or preventing the thalamic release of emotional behavior deserves special attention.⁵³ Implied in this is the idea that the release of emotional behavior is not always a simple trigger action in response to an adequate or a conditioned stimulus, but that sometimes rather elaborate organizations of concepts pertaining to the stimulating situation and to the individual's own beliefs and desires may intervene, may have to be equated before the emotional innervations are set going from the thalamus. This was hinted in connection with the discussion of the causes of strong emotions and it was suggested that Lewin's techniques of analyzing the psychological space of persons in terms of vectors of force may give an excellent key for research to the study of the parts played by attitudes,⁵⁴ or value concepts, in shaping behavior and possibly in controlling emotions. One of the most effective means of preventing the repeated recurrence of strong emotions may be to procure changes in the attitudes of the persons involved.

EMOTIONALLY CONDITIONED ATTITUDES

Attitudes comprise the third affective area to be considered in this report. For definition we turn to Allport, who says:

An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.⁵⁴

⁵³ In verbal interview.

⁵⁴ G. W. Allport, "Attitudes," in *Handbook of Social Psychology*, Carl Murchison, editor (Worcester Mass.: Clark Univ. Press, 1935), Chap. 17, p. 810.

This chapter is especially recommended for reading by all educators. It represents an unusually clear summarization of the experimental work pertaining to attitudes. It has been of great assistance in the preparation of the present report.

Preparation or readiness for response is the essential characteristic.

The attitude is incipient and preparatory, rather than overt and consummatory. It is not behavior but the precondition to behavior. It may exist in all degrees of readiness from the most latent, dormant traces of forgotten habits to the tension or emotion which is actively determining a course of conduct that is under way.⁵⁵

The relationship of attitudes to affect will be clarified in later discussions of the manner in which they are established. Here it may be noted:

An attitude characteristically provokes behavior that is acquisitive or assertive, favorable or unfavorable, affirmative or negative, toward the object or class of objects with which it is related. This double polarity in the direction of attitudes is often regarded as their most distinguishing feature.⁵⁶

This suggests that attitudes may establish the basis for a great deal of affective experience—pleasant if events conform to the direction of the attitudes and unpleasant if they trend in the opposite direction.

DIRECTIVE POWER OF ATTITUDES

An important characteristic of an attitude is its directive effect upon behavior.

Without guiding attitudes, the individual is confused and baffled. Some kind of preparation is essential before he can make a satisfactory observation, pass suitable judgment, or make any but the most primitive reflex type of response. Attitudes determine for each individual what he will see and hear, what he will think and what he will do. To borrow a phrase from William James, they "engender meaning upon the world; they draw lines about and segregate an otherwise chaotic environment; they are our methods for finding our way about in an ambiguous universe."⁵⁷

⁵⁵ *Ibid.*, p. 805.

⁵⁶ *Ibid.*, p. 819.

⁵⁷ *Ibid.*, p. 806.

Allport remarks further:

Attitudes are not faculties, but neither are they fictions. They are dispositions whose boundaries are indefinite and whose independence from each other is only relative. There *must* be something to account for the consistency of conduct. It is the meaningful resemblance between activities and their congruence with one another that leads the psychologist inescapably to postulate some such generalized forms of readiness as the term attitude denotes.⁵⁸

Of course, attitudes may be either valid or invalid in the light of reality. The latter type of attitude is illustrated by prejudice. Prejudice is a set, inflexible prejudgment regarding objects or events. It is an attitude that is so strongly fixed as to distort perception and judgment of reality. It will appear as a most significant factor in connection with many of the social problems where affect is particularly important.

DRIVING POWER OF ATTITUDES

Allport points out that attitudes "are generally considered to be channels through which a motive is expressed, but not in themselves to be true motives." He finds opposed opinions, quoting from Dewey, Köhler, Warren and Carmichael, and North, to the effect that the attitude is "the dynamic element in human behavior, the motive for behavior." Noting that "many writers prefer to emphasize the concrete, personalized motives, such as attitudes represent, rather than abstract uniformities of motives, such as need or instinct,"⁵⁹ Allport contends for a measure of correctness in this point of view. He holds that "in order to account for the infinite variety of human motives, it becomes necessary to admit that the very process of learning is a process of forming new motives, which in time lose their functional dependence upon the antecedent motives from which they were derived."⁶⁰ Allport concludes:

It seems necessary, therefore, to distinguish two types of attitudes: one which is so organized and energized that it actually *drives*, and

⁵⁸ *Ibid.*, p. 836.

⁵⁹ *Ibid.*, p. 817.

⁶⁰ *Ibid.*, p. 818.

the other which merely *directs*. Both of these types are conditions of readiness-for-response, both are in a sense dynamic for both enter into the determination of conduct. The first, however, is specifically *motivational*, the second . . . is merely instrumental.⁶¹

GENERAL AND SPECIFIC ATTITUDES

Some writers maintain that attitudes are specific, that they represent tendencies to make particular responses in particular situations. . . . Other writers, however, consider attitudes as capable of spreading until they represent extensified and broadly generalized dispositions. The issue which is involved in this lively controversy is of the greatest practical and theoretical importance, for upon its solution depends not only the proper choice of methods for investigating attitudes, but likewise the theory of mental organization and of the structure of personality itself.⁶²

Allport directs attention to a strong experimental tradition in favor of the view that attitudes are specific, momentary integrations, a tradition strongly supported by the experimental findings of the Character Education Inquiry.⁶³ But he cites a number of objections to the interpretation of the data unearthed by this study; in particular, he claims that different statistical tools would give evidence for a genuine consistency of moral attitudes from the same data. Allport enters, too, the serious theoretical objection that "without a certain inner organization of tendencies, there would be neither conscientiousness nor intelligibility in behavior."⁶⁴

In support of the case for generalized attitudes, Allport cites noteworthy experimental evidence. For example, Likert, in an experimental study of the attitudes of white people toward the Negro, found that the white people displayed a constant amount of favor or disfavor toward the rights of the Negro,

⁶¹ *Ibid.*, p. 819.

⁶² *Ibid.*, p. 820.

⁶³ H. Hartshorn, M. May, and others, *Studies in the Nature of Character*: Vol. I, *Studies in Deceit*; Vol. II, *Studies in Service and Self-Control*; Vol. III, *Studies in the Organization of Character* (New York: Macmillan, 1928-30).

⁶⁴ G. W. Allport, *op. cit.*, p. 822.

no matter what questions were asked.⁶⁵ The intercorrelation of independent scales affords another evidence of generality as shown by Likert and by Pintner.⁶⁶ Cantril undertook a direct experimental study of general and specific attitudes. His conclusions follow:

1. Generality of some sort in mental life is independent of specific conscious content.
2. General determining tendencies are more constant and enduring than specific content.
3. The formation of a general determining tendency may, in some cases, be due to a cumulation and integration of specific thought processes.
4. If a stimulus situation is applicable to an existing general determining tendency, then that determining tendency is aroused before any more specific attitude or content.
5. A general attitude seems to serve as a dynamic or directive, or at least as a determinative influence upon more specific attitudes and reactions.⁶⁷

A mass of experimental material is offered in support of these conclusions. Space permits the inclusion here of but a few examples: (1) Correct general impressions can be retained over a considerable period of time (three months), although the specific content which had provided the original reason for the impressions may be forgotten. (2) General attitudes remain relatively constant while the specific content is usually different at different times. (3) A positive correlation was obtained between the subject's degree of acceptance of a particular evaluative attitude and his speed of association time to words which had particular reference to that attitude. (4) All general impressions recalled by subjects were correct and errors made in the recall of specific references were usually illustrative of a correct general impression.

⁶⁵ R. Likert, "Technique for the Measurement of Attitudes," *Archives of Psychology*, XXII, No. 140 (New York: Columbia Univ. Press, 1932).

⁶⁶ G. W. Allport, *op. cit.*, p. 823.

⁶⁷ H. Cantril, "General and Specific Attitudes," *Psychological Monographs*, XLII, No. 5 (Whole No. 192) (Princeton: Psychological Review Co., 1932), pp. 105, 106, 107.

Allport believes that *both* general and specific attitudes most certainly exist. He inclines to Likert's hypothesis that "strong and well-integrated attitudes of the generalized type will dominate the mental field and take precedence over all specific determining tendencies. If no such strong general attitudes are available, the individual will be more influenced by the stimulus-situation and by such segment habits as he may have at his disposal."⁶⁸

INSTITUTIONAL AND INDIVIDUAL ATTITUDES

Schanck has studied both the institutional and private attitudes of the people of a rural community.⁶⁹ His conclusions are:

1. People often hold attitudes, as members of institutions, which are quite the opposite of their private feelings;
2. The institutional attitudes of a given group show much more uniformity than do their private attitudes;
3. The private attitudes of the members of these groups are much like the attitudes of nonmembers in terms of variability and moderateness.

F. H. Allport has treated this topic at length.⁷⁰ He points out that institutional attitudes are usually acquired ready-made or on the basis of very superficial experience. Many such attitudes are inharmonious with the individual's basic character and are a danger to personal integration. They may give rise to frequent mental conflicts and to much personal dissatisfaction.

Gordon Allport also emphasizes the possible conflict between public and private attitudes, but adds significantly:

In other cases . . . it seems that the institutionalized attitudes may become focal points in the integration. Through his loyalties and

⁶⁸ G. W. Allport, *op. cit.*, p. 824.

⁶⁹ R. L. Schanck, "A Study of a Community and Its Groups and Institutions Conceived of as Behaviors of Individuals," *Psychological Monographs*, XLIII, No. 2 (Whole No. 195) (Princeton: Psychological Review Co., 1932), p. 133.

⁷⁰ F. H. Allport, *Institutional Behavior* (Chapel Hill: Univ. of North Carolina Press, 1933).

memberships, the individual may find authentic means of self-expression.⁷¹

SOCIAL SIGNIFICANCE OF ATTITUDES

If attitudes are influential in directing and motivating behavior, then the procuring of the same behavior throughout a population is dependent upon the possession of the same attitudes by all the members of that population. This is of extreme importance socially and describes one of the most important functions of education—that of integrating society. The prevention of disease, fires, and accidents depends upon the diffusion of common attitudes throughout a population; so do obedience to law, the maintenance of high standards of honesty and service in business and in government, and the acceptance of social changes made necessary by scientific developments. Uniformity of attitude is equally important within certain large or small segments of society which have special duties, privileges, or needs. Physicians never refuse to treat a person who is suffering; labor groups find strength to insist upon reasonable wages and work conditions as they implement common attitudes through organization; law is an agency of justice as long as the members of the bar and the bench maintain ethical attitudes looking toward the defense of right, rather than toward financial gain derived from finding legal loopholes for crooks in business or in gangsterland.

In contrast, society will be differentiated and finally dissociated by the appearance of varying or incongruous attitudes among its members. In so far as society inevitably implies diversity in occupation, in living standards, and in responsibilities which must be carried, variety in attitudes among the population is essential to personal adjustment and to a balanced society. Also, while the attitude of the majority must be that of using effectively and of enjoying the institutions, machinery, aesthetic materials, and moral principles accepted in contemporary society, there must always be a minority whose attitude is one of dissatisfaction with these things. To this mi-

⁷¹ G. W. Allport, *op. cit.*, p. 826.

nority is entrusted the task of invention and discovery in the scientific, social, aesthetic, and moral fields—a deep discontent must drive them to seek better ways of living. On the other hand, the existence of conditions which drive large blocks of the population to hold attitudes too sharply antagonistic to those of other large or influential groups can cause only conflict, lowered efficiency, and ultimate disintegration in a society. Changes in conditions which produce more like-mindedness will decrease friction and strife.

Not only is affect important in connection with the formation of attitudes, but attitudes themselves are important sources of affect when the behavior which they imply is obstructed or penalized. If certain factors in society such as the school, advertising, or the teachings of the church develop attitudes favorable to types of behavior made impossible by prevailing social conditions, then tension, disappointment, and feelings of frustration are inevitable. Either the attitudes must be replaced, or social changes must come about, or the individual must compartmentalize his thinking and submit to permanent dissociation due to the lack of harmony between his beliefs and his actions.

SIGNIFICANCE OF ATTITUDES FOR MENTAL HYGIENE

The importance of attitudes for society suggests a converse importance for the individual. His adjustment will be impeded unless he is given experiences which will engender attitudes sufficiently in conformity with the various mores of his society to permit him to find a useful and secure place for himself. On the other hand, a social regime of such rigidity that growth and self-expression in the form of working for self- and social-improvement are denied must produce personalities that are thwarted and antisocial.

Attitudes and Integration

But attitudes have an even larger significance for personality development. Certain general attitudes undoubtedly furnish

to life the *core of meaning* about which the whole personality is organized. Hollingworth, in writing about the adolescent child, says that "a point of view upon the world that will unify life and give it meaning"⁷² is a basic need of young people. She quotes German studies of the diaries of adolescents as showing the following subjects of preoccupation and reflection: God and man, knowledge and belief, prayer, the problem of existence, God and nature, tolerance, duties toward God.

She adds:

The development of *altruism* at this period is also evident in the greatly increased amount of reference to "others" as objects of solicitude and prayer.⁷³

There appears a "will to justice" in adolescence . . . the feeling for justice works in the emotional life of youth with elemental strength.⁷⁴

In connection with the problem of establishing selfhood, Hollingworth writes:

The self may be most fruitfully conceived of as an organization in which sets of habits pertaining to the various fundamental needs of the person function together. The adequately matured, well-integrated self is one in which these sets of habits function harmoniously and without creating chronic emotional tension. . . . In his effort to find himself, the adolescent seeks models and *ideals*. He is likely to relate himself to certain stereotypes which he finds approved in his world . . . the high school age is characterized by active devotion to ideals . . . it follows that there is special interest in biography, fiction, and the movies during this period and that these are important means of character formation.⁷⁵

Hollingworth cites Meltzer's article on the "Personification of Ideals and Stereotypes in Problem Children" in support of this contention.⁷⁶

⁷² Leta Hollingworth, "The Adolescent Child," in *Handbook of Child Psychology*, *op. cit.*, p. 884.

⁷³ *Ibid.*, p. 896.

⁷⁴ *Ibid.*, p. 898.

⁷⁵ *Ibid.*, p. 898.

⁷⁶ H. Meltzer, "Personification of Ideals and Stereotypes in Problem Children," *American Journal of Orthopsychiatry*, II (1932), pp. 384-99.

Attitudes and Moral Behavior

The role of attitudes as the basis for moral behavior is of equal importance. Vernon Jones discusses this in the *Handbook of Child Psychology*. He states:

Verbalized concepts do motivate moral behavior at times. Generalized concepts or ideas are gradually built up in accordance with the laws of learning out of experiences which are verbalized. And once these verbalized concepts, or symbols for objects and events, are acquired, they become tools, not only for considering the present, but for reconstructing the past and planning the future. . . . With them we build the goals we would achieve. By them great and small characters of the past and present may exert motivating influences upon us, in so far as we have reacted to their actions and their percepts.⁷⁷

Again, Jones writes of the child:

Just as he learns gradually the uses of objects, he learns that certain acts are looked upon with approval and others with disapproval. . . . No other behavior of his is so violently responded to by adults as this, where questions of right and wrong are raised, and *consequently no other becomes so quickly and so thoroughly emotionally toned*. . . . Attending the development of generalized ideas of honesty and dishonesty, of rightness and wrongness, there is the integration of innate tendencies (needs) and the development of emotional accompaniments. Here we have the genesis of ideals.⁷⁸

Attitudes and Health

The medical profession also finds that it must consider the basic organization of experience that constitutes the core of meaning in life if it would treat patients effectively.

In medicine, we find it necessary to consider, not merely the objective environment, but also its subjective counterpart within the organism, which we find in its most integrated form in the *Weltanschauung* of the individual. . . . Physicians in general . . . are beginning to call attention to the importance of *Weltanschauung* from a purely practical point of view.⁷⁹

⁷⁷ Vernon Jones, "Children's Morals," in *Handbook of Child Psychology*, *op. cit.*, p. 517.

⁷⁸ *Ibid.*, p. 525.

⁷⁹ Dunbar, *op. cit.*, p. 56.

Dr. Dunbar continues her discussion with many quotations from psychiatrists who hold this point of view.

C. M. Campbell has called attention repeatedly to this aspect of our problem, saying that "the study of 'beliefs' is part of the general study of the mechanisms of man's adaptation to his environment." The term, health, is now coming to include sanity of beliefs as well as soundness of body. . . . Man's environment to which he must adjust, includes, not only (a) supplies to acquire, and (b) hostile organisms to fight, but also the spiritual forces of a social environment. . . . Man's beliefs add to the quality of life and give it value, and may also prolong it. . . . Beliefs affect the actual length of life of individuals and groups, and to scrutinize them is the "most important and the most difficult task in the field of public health."⁸⁰

F. L. Wells makes adjustment "the attainment of what is valued" and maladjustment "the failure to attain it."⁸¹ He points out that what is valued necessarily varies from culture to culture and argues that most maladjustments in our present "power culture" take the form of regressions—the substitution of more simple, more childlike conduct patterns. Sublimation is the converse of regression and tends toward "a synthetic interpretation of experience."⁸² Value concepts, progressively organized in more complicated and more comprehensive fashion, furnish the ultimate center from which behavior is oriented.

INTEGRATION OF THE SELF

From the foregoing, it is apparent that emotionally conditioned attitudes have a most important place in determining both the personality and character of a person. Their functions may be listed as follows:

1. They supply the code or measuring rod by which the behavior of the individual and of others is judged.
2. They supply the principles on the basis of which choices

⁸⁰ *Ibid.*, p. 57, from C. M. Campbell, *Delusion and Belief* (Cambridge: Harvard Univ. Press, 1926).

⁸¹ F. L. Wells, "Social Maladjustments: Adaptive Regression," in *Handbook of Social Psychology*, *op. cit.*, p. 845.

⁸² *Ibid.*, p. 853.

are made; when body conditions demand action, they determine what may and what may not be done.

3. They represent the crystallized meaning of accumulated experience, the *Weltanschauung* of the individual. This is the unifying or integrating thread which runs through and colors the interpretation of all experience, thus supplying unity and individuality.

4. They supply the basis for envisaging the future world and for projecting the place of the individual in that world. They become the bases for goals of behavior, for both short-term and long-term purposes which are, at the same time, social and personal.

To sum up all of these functions is to say, in the terminology of Lewin, that attitudes determine the valences in most of the situations that we face in life.

IMPORTANCE OF AFFECTIVE PHENOMENA FOR EDUCATION

Possibly, it is trite to point out that each of the basic affective phenomena, described so briefly in this chapter, is of enormous importance for education. Certainly, the undertone of mood or feeling that is continuously present in every classroom is influential in facilitating or retarding the assimilation of meaningful experiences. Also, when a given child has a background of feeling peculiar to himself because of special conditions pertaining in his life, its recognition by the teacher must be a primary condition to the establishment of the necessary sympathetic relationship with him. School still involves great restriction of movement in active children. Seats are uncomfortable, rooms too hot or too cold or badly lighted. Rules and lesson assignments are often rigid and arbitrary. Perhaps this accounts for the widespread tradition among children—and adults too—that school is unpleasant and to be disliked by any normal human being. In contrast with this, the tonic effect of “mild emotions” suggests the possibility of making schools places of much more vivid experience than at present, of enlivening and enriching the educative process.

Whenever they occur, strong emotions call for careful consideration on the part of school people because of their crisis nature and their tremendous effect on the individual. The conscious stimulation of strong, unpleasant emotions for disciplinary or motivation purposes should be undertaken with the greatest care and with due regard for the effects on the personality and health of the child. The tasks required of children who are under strong emotions from out-of-school situations should be set with consideration, and the situations into which such children are forced must be carefully selected. A certain amount of emotional re-education is implied too, if children are to be "matured" in their capacities to meet life in all of its aspects.

The development of attitudes, ideals, loyalties, and purposes, accomplished by assisting the individual with the organization of his experiences, has always been recognized as an ultimate aim of educators. In former years, it was undertaken by the teaching of precepts and accomplished by the practice of social taboos and group pressure. Now, the swift changes that are coursing through society and the discrediting of precept teaching has left school people talking vague generalities about character education and floundering badly in practice. In contrast, the dictators of other nations and the demagogues of our own nation have not lost the art of winning loyalties and inciting prejudices. They generate emotion, attach it to a concept, and hold their followers well in hand as a consequence. Apparently, the Problems and Plans Committee of the American Council on Education was quite right in its suspicion that "the stress laid on the attitude of neutral detachment, desirable in the scientific observer, has been unduly extended into other spheres of life" and that "education should concern itself with the strength and direction of desires developed or inhibited by the educational process."

III

PHYSIOLOGICAL BASIS OF AFFECTIVE EXPERIENCE AND BEHAVIOR

IN THE PREVIOUS CHAPTER, the close relationship between affective experiences and the dynamic physiological processes of the body was mentioned frequently. The tendency in some quarters to treat all emotion as pathological and undesirable demands a somewhat more extensive treatment of this topic. It is our point of view that affective processes not only are valuable, but essential means by which the organism maintains its basic equilibria throughout the wide range of situations which confront the individual. In fact, we can go still further and say that affective phenomena, including pain, are the means through which we become aware of how things are going in the physiological realm, of the results of behavior in physiological terms, of the effects of the impinging situation upon body tensions and processes.

RELATION OF AFFECTIVE BEHAVIOR TO BIOCHEMICAL EQUILIBRIA

Rignano maintains:

If we reserve the term affective for that particular class of organic tendencies which appear subjectively in man as desires, or appetites, or needs . . . then a whole series of the principle affective tendencies . . . may be at once reduced to the single fundamental tendency of each organism to its physiological invariability.¹

Monakow, a neurologist, has this to say:

It is not unlikely that even in the process of assimilation and elimination of chemical substances, there is realized a certain trace of pleasurable or painful sensation. . . . An inner germ of emotion,

¹ E. Rignano, *Psychology of Reasoning* (New York: Harcourt, Brace, 1923), p. 1.

which in the minimum, finds expression as primitive will. . . . I would ascribe to every cell a minimal primitive quality of reflection of self, equivalent to the feelings of pleasure and pain.²

Each of the statements just quoted grants affective value to the most elemental physiological processes of the organism. Monakow ascribes affect to the single cell, Rignano says that the affective experiences of the organism as a whole refer back to essential biochemical conditions in the various cells. The two agree that it is the condition of basic physiological processes which determines affect. If this be true, then affect plays an extremely important role in human life and all the nonsense about the desirability of suppressing or eliminating it should be disposed of once and for all. One cannot eliminate or suppress that which is inherent in cell and organ chemistry.

One thing is sure—there are certain physiological equilibria which must be maintained or the organism will die. While no complete biochemical exposition of life processes has yet been made, the nature of the dynamic equilibria involved is increasingly known. Certain intracellular and intercellular conditions of energy exchange must be maintained within relatively fixed limits. These conditions are concerned with the rate of oxidation and reduction, with the rate of penetration of certain chemical substances, with the maintenance of certain electrical potentials, conditions of ionization, and so on. Furthermore, the body is equipped with an astoundingly intricate and effective set of glands, organs, controlling structures, and media for accomplishing this miracle of integration. What logical reasons can be found, then, for supposing that affective phenomena are related primarily to the maintenance of these conditions and to making the organism aware of maladjustments?

Evidence of Relation of Affect to Basic Physiological Equilibria

An enumeration of the conditions under which affect appears

² C. von Monakow, *The Emotions, Morality and the Brain*, Nervous and Mental Disease Monograph Series, No. 39 (Washington: Nervous and Mental Disease Pub. Co., 1925), as quoted in H. Flanders Dunbar, *Emotions and Bodily Changes* (New York: Columbia Univ. Press, 1935), p. 9.

and a description of the nature of the processes themselves support the point of view described above.

1. Light emotional shock, which implies the need for greater alertness, is tonic to normal body processes.

2. Strong unpleasant emotions are caused by sudden and intense changes in stimulation which may be sufficient to upset biochemical equilibria in the hypothalamus.

The thwarting of behavior inferred by the individual to be desirable for the obtaining or maintaining of optimum conditions is also an adequate cause of strong emotion.

3. The affective reactions occurring in strong unpleasant emotions are physiologically correct as preparation for meeting crisis situations involving strenuous activity.

4. Mild feelings of pleasantness and well-being accompany the uninhibited function (energy transformation) of the body in natural ways; strong pleasant emotions occur in connection with the rapid expenditure of energy in normal ways after periods of frustration.

5. Erotic desire, severe hunger and thirst, and the desire for activity arise from biochemical conditions. When appropriate behavior is frustrated, these biochemical conditions give rise to various body disturbances with accompanying unpleasant affect. When the need for biochemical adjustment is satisfied, very pleasant affect ensues.

6. Strongly affective attitudes in general relate to matters close to the basic biological factors in human life. They usually have to do with sex mores, with race differences, with personal or institutional rivals, and with the agencies that regulate the conditions under which a livelihood is secured such as the government, the economic order, nationalism. These attitudes are usually favorable to the maintenance of the *status quo* in individuals who are secure or hold privileges. They are favorable to changes in persons who are insecure or underprivileged under present conditions. Changes in conditions usually are followed by appropriate changes in attitude. Strong attitudes are also associated with concepts about the welfare of the soul, i.e., with religion.

7. Emotionality is induced more frequently and easily in individuals who are fatigued or ill than in healthy, rested persons.

8. Distinct physiological patterns of behavior peculiar to the different types of situations causing emotions exist only to a limited extent and always are appropriate to the demands to be made on the body by those conditions. Fear, anger, and strong anxiety have much in common, physiologically.

9. The organs involved in affective responses are those concerned with the body economy, viz., heart, respiratory tract, arterial and venous systems, endocrine glands, alimentary canal, liver, spleen, sweat glands, etc.

10. The organs of control effecting emotional responses are those which normally regulate the body economy, viz., the autonomic nervous system and the hypothalamus.

11. The cortex exercises both an inhibitory and an excitatory regulative power over the structures directly in control of affective reactions. It prevents the drastic reorganization of the body economy under conditions which seem to make it unnecessary and excites this reorganization under conditions which experience shows to involve the need. This is shown by emotional conditioning and by the possibility of re-educating emotionally-conditioned persons.

12. The frequency of inappropriate emotions in decorticated animals and in human beings with brain lesions or following certain illnesses further demonstrates the normal function of the cortex as inhibitory or excitatory to emotional behavior according to the appropriateness of conditions.

There is the danger always that an elaborate rationalization developed in support of an hypothesis may be in error. But the foregoing are enough, at least, to point out a very intimate relationship between affective reactions and basic physiological processes. Just what biological purposiveness or utility is implied must be judged by each one for himself. Certainly affective behavior is so important to the welfare of the body that it cannot be lightly considered a mere survival from animal an-

cestors, without any appropriate place in contemporary human life.

MECHANISM OF CORTICAL CONTROL OF AFFECTIVE REACTIONS

Cannon³ and Bard⁴ have given the clearest expositions of the probable neural mechanisms controlling emotional behavior. Their theory notes that nearly all incoming sensory stimuli are relayed to the cerebral cortex from certain neural centers in the thalamus. They infer that in the case of certain sudden and intense stimuli, an irradiation occurs throughout the thalamus of sufficient intensity to overcome the "cortical check" and "release" the appropriate stimuli over the autonomic nervous system. Simultaneously, they believe, there is released upward into the cortex the innervations from the thalamus which give to emotions their peculiar and characteristic feeling quality. Or, the incoming stimuli may proceed to the cortex without releasing the emotional reactions from the thalamus, only to be shunted back to the thalamus to effect that release because of conditioned factors aroused in the cortex. Such is the theory and it is a very plausible one, accounting for many peculiarities in emotional experience and behavior which presented insurmountable resistance to the James-Lange theory.

But Cannon and Bard both remain vague about the "cortical check." They do not explain the mechanism, the underlying physiology, by which this check operates or is released. Its release cannot be a simple function of the intensity of stimulation coming into the thalamus, nor yet of the stimulation of a particular neural pathway emerging from the cerebral cortex in the case of conditioned emotion. We know that a given intensity of stimulation will not always release the emotional reactions under varying conditions. We know, too, that positively unique situations without emotionally conditioned ele-

³ W. B. Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage* (2d ed.; New York: D. Appleton, 1929), Chap. XIX.

⁴ P. Bard, "The Neuro-humoral Basis of Emotional Reactions," in *Handbook of General Experimental Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1934), pp. 264-311.

ments may cause emotional behavior; but the mechanism of release in the case of thwarted or blocked behavior is not clear. The work of Lashley⁵ has thrown doubt upon the specificity of neural connections underlying conditioned behavior and has shown that relatively large brain areas are involved in even simple behavior. Finally, the work of Berger,⁶ of Adrian,⁷ and of others has shown that the brain is an organ marked by fluctuating electrical potentials, which occur in rhythmic waves, varying from area to area and always having a relationship to certain centers in the occipital lobes. The behavior of these rhythms in electrical potential suggests at once that behavior is mediated by ratios or gradients in electrical and biochemical activity between different parts of the cerebral cortex and possibly between different parts of the brain as a whole. In the case of emotions, gradients between the cerebral cortex and the diencephalon may be the critical ones, now exercising a check and again releasing the activating currents from the thalamic area. Such a concept brings one close enough to basic physiological equilibria to justify a somewhat more detailed development.

ESSENTIAL BIOCHEMICAL EQUILIBRIA IN GRADIENTS

Studies of the electrical and chemical phenomena underlying the life activity and growth of cell structures in various organisms show that the rate of energy exchange, or of chemical change (oxidation, reduction, permeability, potential) varies from point to point within the cells in accordance with certain structural and quantitative laws. These variations, called gradients, show that each cell is a unitary dynamic field of energy exchange and that it possesses a certain energy structure.⁸

What has been said of cells applies equally well to whole

⁵ K. S. Lashley, *Brain Mechanisms and Intelligence* (Univ. of Chicago Press, 1929).

⁶ H. Berger, "Über das Elektrenkephalogramm des Menschen," *Archiv für Psychiatrie und Nervenkrankheiten*, IX (1934), No. 102, 538-57.

⁷ E. D. Adrian and K. Yamagina, "The Origin of the Berger Rhythm," *Brain*, LVIII (1935), 323-51.

⁸ C. M. Child, *Physiological Foundations of Behavior* (New York: Holt, 1924).

organs. The latter have been shown to be organized fields of energy exchange structured according to law. An increasing number of these organic gradients is being worked out. For example, Tashiro has found a gradient of CO₂ production in certain nerves, MacArthur and Jones have found a gradient in respiration rate in the nervous system as a whole, and Alvarez and his co-workers have found gradients in irritability, latent period, tone, rhythm, conduction, and susceptibility to drugs in the small intestine and between the stomach and colon.⁹ Bartley, Newman, and Perkins have found gradients in the strength of action currents along the surface of the brains of dogs.¹⁰ The latter showed that patterns covering the whole cerebral cortex are involved in all the forms of behavior studied. This suggests that the neural structures underlying behavior have representations in terms of physiological gradients of an electrical or electro-chemical sort. The most recent work dealing with electric potentials in the brain, done in half a dozen different places, supports this conclusion too.

Growth as a Function of Physiological Gradients

Child,¹¹ Huxley,¹² Coghill,¹³ and many other biologists believe that the growth of the body as a whole and the differential growth of special organs is regulated by physiological gradients. This is held to be true of particular structures such as the neurones. Coghill has shown, too, that "after the nerve cell has assumed a definite and specific role as conductor in a functional mechanism, it grows for a relatively long time in strictly embryonic fashion and thereby extends its sphere of action enormously."¹⁴ The implication of this work is that the neural structures underlying basic emotional reactions are mediated

⁹ *Ibid.*, pp. 90, 91.

¹⁰ R. H. Wheeler and F. T. Perkins, *Principles of Mental Development* (New York: Crowell, 1932), p. 71.

¹¹ Child, *op. cit.*

¹² J. S. Huxley, *Problems of Relative Growth* (New York: Dial Press, 1931).

¹³ G. E. Coghill, *Anatomy and the Problem of Behavior* (London: Cambridge Univ. Press, 1928).

¹⁴ *Ibid.*, p. 82.

during their development by gradients. The suggestion is found here, too, that after the gross, relatively undifferentiated pattern of excited behavior has been established, differentiated patterns may be worked out through further neural growth governed by physiological gradients. Thus the structuring of emotional behavior may be induced and regulated by these gradients.

Influence of External Conditions on Physiological Gradients

The maintenance of the essential organ and cell gradients is dependent upon the maintenance of certain well-defined chemical and temperature conditions in blood and lymph, and these in turn are dependent upon proper chemical intake and discharge. Anything which interferes with these, interferes with the essential body processes. On the other hand, the adjustive power of the body is so sensitive and effective that changed external conditions are followed immediately by internal accommodations. Silvette and Britton have shown on an experimental basis that the maintenance of the blood sugar level is invariably associated with maintenance of the body temperature within normal limits in relation to temperature changes in the environment.¹⁵ In other words, the adaptive changes which occur in the blood stream, whether under emotion, under intense physical activity, or under response to cold, are directed toward the maintenance of essential equilibria and may be induced by any of a number of causes which affect these equilibria. Ellsworth Huntington has contributed an interesting discussion of the influence of weather conditions on the metabolic and other biochemical processes of the body in his work on climate as a factor in recovery from disease. Climatic conditions of importance include atmospheric pressure, atmospheric electricity, humidity, temperature, amount of sunlight, winds, and so on.

¹⁵ H. Silvette and S. W. Britton, "The Comparative Effects on Carbohydrate Metabolism of Exhaustive Motive and Emotive Responses and Exposure to Cold," *American Journal of Physiology*, C (1932), 685-92.

RELATION OF ORGANIC GRADIENTS BETWEEN CEREBRAL
CORTEX AND HYPOTHALAMUS TO EMOTIONAL
BEHAVIOR

May it not be logical to conclude from the foregoing discussions that the basic condition for release of emotional innervations from the hypothalamus into the autonomic nervous system is the modification of gradients between the cerebral cortex and the hypothalamus until they pass certain critical limits? The modification of the gradient, past the critical point, could come about through changes in either end of the gradient, that is, either in the cortex or in the thalamus. It is felt that this hypothesis can explain the check usually held by the cortex on emotional behavior, the mechanism by which conditioned emotional behavior is released and the excessive emotionality of decorticated animals, and of human beings with brain lesions or suffering from certain diseases.

The significant changes in gradients could be accounted for in terms of external stimulation, in terms of the physiological effects of inhibition, of excessive fatigue or malnutrition, and in other ways. The irritability of overtired or overstimulated children, the excessive emotionality of persons suffering certain glandular disorders, the restlessness of persons under various appetites as hunger, sex, thirst, alcoholic, or drug, the persistence of chronic conditions of anxiety and fear, and the conditions giving rise to hysterical behavior would be explained much better by such an hypothesis than by the usual theory of behavior as controlled by varying synaptic resistances within specific neural pathways.

Physiological Bases of Emotional Lability

Individual differences in emotional stability and lability have been recognized widely. It is possible that an imbalance between the secretions of the various endocrines, which periodically disturbs the body economy, accounts for emotional lability. Conceivably, there may be some relationship between these characteristics and the physiological gradients in the brain—

possibly the dynamic equilibria must be maintained within narrower limits in some individuals than in others—but these relationships have not yet been defined. Individual differences in intensity of emotional response and in the toleration of emotional strain without “breakdown” or markedly aberrative behavior also have been observed. Some relationship between these characteristics and the endocrine functions that follow the release of emotional reactions may exist. Empirical attempts to describe accurately the “psychopathic personality,” or the “criminal type” lacking in adequate emotional control, to classify humanity into temperamental types, and to characterize racial differences in emotionality seem to have a certain amount of common-sense verification but, as yet, no scientific validation. It seems probable that disparate types do not exist, but that temperamental differences in emotionality along a continuum between the extremes of phlegmatism and lability, between rational control and licentious irresponsibility do exist. These differences doubtless are rooted in physiological dynamics and need study.¹⁶

IMPLICATIONS FOR EDUCATION

The intimate relationship between the essential dynamic, biochemical equilibria of the body and emotion has been pointed out. The mechanism by which emotional reactions are released remains something of a mystery, but the newer discoveries of gradients of electro-chemical rhythms between different parts of the brain suggest a possible explanation. When critical limits are passed, these gradients may be the initiating factors setting off emotional responses along already patterned lines. This gives to emotional reactions a biologically purposeful aspect which replaces the “undesirable, instinctive, survival-from-animal ancestors” explanation of them. It suggests that

¹⁶ See H. V. Hanna, “Clinical Procedure as a Method of Validating a Measure of Psychoneurotic Tendency,” *Journal of Abnormal and Social Psychology*, XXVIII (1934), 435-45.

See also J. P. Guilford and K. W. Braly, “Extroversion and Introversion,” *Psychological Bulletin*, XXVII (1930), 96-107.

the problem of education in dealing with emotion is less that of suppression and rigid regulation and more that of organizing conditions to minimize violent reaction and to provide opportunities for the reasonable working through of vital energies.

We have always known that people have something corresponding to an instinct of self-preservation. We may look upon emotions as the implementation of this instinct. In situations in which sudden changes threaten the welfare of the organism, the body resources are mobilized and we call the total experience "fear." When the menace eventuates in frustration, our resources are equally well mobilized and we call the experience "anger." In the case of a bereavement, passive grief reduces the energy expenditure to a minimum while we are adjusting and reorganizing our life. In contrast, when we are surmounting an obstacle, we spend energy rapidly in a purposeful way and call the experience "joy." We are driven to the most essential form of self-preservation, the perpetuation of the species, through sexual activity. The accompanying emotion has a peculiarly appealing demand for repetition, and yet is entirely appropriate in its energy-organization aspects. Emotions, then, are among the most basic, deeply-rooted, and biologically useful forms of behavior. They are the modes of physiological integration through which we meet relatively critical situations.

Attitudes, too, refer back to the innate biological tendency of the organism to seek optimum conditions for itself. The intimate relationship which exists between affective behavior and the fundamental physiological equilibria insures that the basic characteristic of most attitudes is their expression of the individual's concept of his own self-interest. But while attitudes are thus physiologically rooted, they represent the highest form of mental organization—generalization based on experience. Specific attitudes often show that a particular experience has had either a desirable or an unfortunate result for the individual. For example, a person may believe that a particular act in connection with driving a car is a very undesirable thing because it once led to an accident; or a person may regard all

members of a particular race as dishonest because he was once cheated by a member of that race.

A still higher form of mental organization is the generalized attitude which crystallizes gradually from a whole series of experiences. For example, a person may believe the adage, "Do the other fellow before he does you," because he has been placed at a disadvantage repeatedly by being frank and fair in his dealings, or because he has seen numerous persons achieve success through known irregularities and sharpness in their businesses.

Ascending the hierarchy of attitudes still farther, we find attitudes of loyalty. A person may feel and act with loyalty toward the Republican party because his business usually has been better, less trammelled by governmental regulations, and more protected by tariffs under Republican administrations. Another person may be loyal to a given lodge because in that lodge he has held offices and performed functions which gave him social status and confidence in his own powers and importance. Then comes another higher mental organization of attitudes, attitudes arising from abstract value concepts. A man may be loyal to a political party, a church, or an institution because he believes that it is influential in building a better community, a better nation, or a better world. "Better" involves a value concept and rests in turn upon what the individual himself wants to get out of life; in this sense, loyalty still implies self-interest or self-realization. Self-interest, of course, is not synonymous with selfishness.

The final level of mental organization, the ultimate in attitudes for a particular individual, may be called his purpose, his *Weltanschauung*, or simply "what he wants to get out of life." Life may be lived primarily for the purpose of acquiring objects, power, prestige, or exhilarating experiences, and in this case the individual associates his welfare with materialistic factors. Life may be lived for the social good, and in the latter case, despite materialistic deprivations, an individual may feel himself significant as a school teacher, a government official,

the manager of an effective business, as a soldier in a fascist army, or a farmer producing foodstuff. The essential matter is the orientation of his self-expression. If he feels that he is realizing himself best when he is doing something for the general welfare, it is because he associates his own welfare with the collective good. Self-interest still is regulating his attitudes. Finally, there is motivation on the basis of abstract concepts of good or beauty. For the glory of God, or for a moral principle which personal experience has endowed with strong affective value, a person may behave even to the detriment of his physical well-being, yet always for self-interest. "He that loseth his life shall find it." "What does it profit a man if he gain the whole world and lose his own soul?"

We find that self-interest ranging from the grossest selfishness to the most enlightened altruism mediates the development of attitudes and determines their orientation. Accumulated experience ingrains them more deeply and causes them to become, in turn, the directing agents of personality development and expression. This concept, that self-interest is the dynamic core of affective life, gives the key to effective methods and materials to be used in education. It supplies the cue for the interpretation of the cross-currents of social life. It points the way to national unity and warns of national disintegration. It can render the same service to humanity.

IV

PATTERNING AND TRAINABILITY OF AFFECTIVE BEHAVIOR

THIS CHAPTER will be devoted to an examination of data about the manner in which the various patterns of affective behavior come into being and about the extent to which they may be modified by training. Both of these problems are of tremendous importance to education. If the patterns of behavior by which emotions express themselves are present at birth or appear later as the result simply of the genetic process of maturing, then the task of the schools may be that of re-educating primitive, elemental behavior which is poorly adapted to modern conditions. In such a case, the question of trainability, of the readiness with which modifications in these basic patterns may be made, becomes a pressing one. On the other hand, if emotional behavior is not cast into specific patterns at birth or as a result of maturing, but is determined altogether or in greater part by experience, then the problem of the schools becomes one of regulating the experiences of children in such a manner that only those patterns suitable for contemporary social conditions will become fixed. In this case, the trainability of emotional behavior may be regarded as established and the problem becomes that of finding an effective methodology for inculcating wholesome conduct habits.

In connection with this topic, the dominant role played by the cerebral cortex in regulating the behavior of human beings should be borne in mind. In lower animals, the lower brain centers with their apparently greater fixity of influence seem to play a relatively larger role in the organization and control of behavior. For this reason, data derived from the study of human subjects will be given preference in this report over data based on the observation of animals, wherever anything like equal scientific validity seems to obtain.

EMOTION AS AN ASPECT OF INSTINCTIVE BEHAVIOR

Perhaps the most traditional view of emotional behavior is that expressed by MacDougall. He regards emotions as the affective aspects of instinctive behavior. Smith, who professes to follow MacDougall, says:

The essence of an instinct is that it is constituted by innate constructional details of the organism, such that, confronted by a particular situation, it tends to react in a particular way. The particularity of the reaction will depend on the degree of standardization, so to speak, of the stimulating situation on the one hand and on the structure of the organism on the other, using the term structure, of course, in the widest possible sense.¹

Emotion is the effect produced in consciousness by the endosomatic adjustments elicited in the organism by the stimulus applied to it, or, more generally, by the situation which it encounters. It is thus associated in the most intimate possible manner with the reaction corresponding to that situation or stimulus, and may thus be correctly described as the affective aspect of the operation of an instinct.²

MacDougall himself describes the interrelationship of emotion and instinct as follows:

We cannot speak of knowing, striving and feeling as three phases of mental activity, but only as three distinguishable and inseparable aspects of one activity; for they occur together in intimate interplay with one another.

But though these three aspects are inseparable and characterize every phase of mental activity, the three vary greatly in intensity or prominence from moment to moment.

With . . . rising intensity of your general excitement, your state has become distinctly emotional—to experience emotions is to be excited, to be moved to activity of some sort and the more intensely excited we are, i.e., the more strongly we are moved to action, the more emotional the experience.³

¹ W. W. Smith, *The Measurement of Emotion* (New York: Harcourt, Brace, 1922), p. 22.

² *Ibid.*, p. 24.

³ Wm. MacDougall, *Energies of Man* (New York: Scribner's, 1932), pp. 147-48.

MacDougall, then, does not regard emotions as unique forms of behavior, each patterned in its own way to constitute a complete behavior sequence arising from a particular stimulus or situation. Instead, he sees emotions as one aspect only of larger behavior patterns governed by instinct and varying more or less from situation to situation.

Specific Innate Pattern Theory

In sharp contrast to this position stands the theory of John B. Watson which, in somewhat modified form, possibly enjoys the widest acceptance among educational psychologists in the United States. Watson, on the basis of experimentation with neonates, maintained that there are three "primary" emotions which show complex innate patterns of overt behavior. They are fear, rage, and love. Fear is indicated by "a sudden catching of the breath, clutching randomly with the hands, sudden closing of the eyelids, puckering of the lips, then crying." Rage is shown by "fairly well coordinated slashing or striking movements of hands and arms . . . the feet and legs are drawn up and down; the breath is held until the child's face is flushed." There is said to be a "characteristic" cry. Love brings about a "cessation of crying, smiling, attempts at gurgling and cooing."⁴

Certain other experimenters, while not necessarily agreeing with Watson in detail, or even in the general formulation of his theory, do believe that there are specific innate patterns of emotional expression. They find them in facial and vocal behavior. Dumas has made elaborate studies of facial expression.⁵ Seashore believes that he has found in the vibrato the characteristic vocal expression of emotion.⁶ It is not necessary, here, to

⁴ J. B. Watson, *Psychology from the Standpoint of a Behaviorist* (Philadelphia: Lippincott, 1919).

⁵ G. Dumas, *Nouveau Traité de Psychologie* (Paris: Felix Alcan, 1932), Vol. III, Book II.

⁶ C. E. Seashore, "Phonophotography as a New Approach to the Psychology of Emotion," in *Feelings and Emotions; The Wittenberg Symposium* (Worcester, Mass.: Clark Univ. Press, 1928), pp. 206-11.

summarize these and other experimental studies of the facial and vocal expression of affective experience. It is sufficient to report the conclusions of Landis who made a thorough investigation of the literature. He says:

The experimental investigations of the facial expressions of emotion . . . indicate that there is no pattern of expression (except smiling) which may be said to characterize any situation or emotion of any one individual or group of individuals.⁷

Landis feels that:

Facial expression is a *more or less variable part* of emotional experience. The presence or absence of pattern of expression from the voluntary musculature of the face adds to or detracts from the entire emotional experience. . . . The important elements in emotional expression are the situation and the level of activity of the body. Three patterns of facial expression—surprise, joy, and depression—result from the condition of the facial musculature as direct responses to the stress of the situation.⁸

In other words, Landis admits that emotion is accompanied by facial reactions which are more or less characteristic of emotion, but he denies that these have an invariable specificity of pattern for the same individual or among different individuals.

Experimental Material Relating to Pattern in Neonates

The fact that Watson, the arch antagonist of the doctrine of instincts, had announced that at least three emotions not only are instinctive in that they inhere in the general structural make-up of the individual, but also have specific patterns of expression led to some significant research seeking to verify his observations.

Pratt, Nelson, and Sun restrained babies in the same manner as Watson reported that he had induced rage. Performing 358 experiments upon 66 infants, they found: (1) that the children

⁷ C. Landis, "The Expressions of Emotion," in *Handbook of General Experimental Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press), 1934, p. 322.

⁸ *Ibid.*, p. 326.

remained passive after the restraint was removed in 58 per cent of the instances; (2) that there was a brief period of activity followed by inactivity in 26 per cent of the cases; (3) that there were flexing and activity in 13 per cent of the cases; (4) that in 3 per cent of the group there was quiet for a time followed by activity.⁹ These experimenters report that quiet, rather than rage, is the result of restraint.

Another Ohio State University study of the patterns of emotional behavior concludes:

No matter how these data are treated, they will fail to disclose any pattern responses to the four stimulus conditions which were employed. . . . Those conditions which Watson described do not initiate constant pattern responses in the infants used in this study; and, since Watson's findings are considered basic by those who hold that emotional responses are innate, the entire theory is placed on the defensive.¹⁰

Mandel Sherman also has challenged the specific innate pattern theory of emotional expression with quite a series of experimental findings. He elicited responses from infants by restraining the head and face, dropping them suddenly, pricking the cheek several times with a needle, and causing delay in feeding them. Undergraduate and graduate students in psychology, nurses, and medical students were used as observers. Some were shown motion pictures of the stimuli and the responses, others were shown motion pictures of the responses but not the stimuli. In another case, the stimuli and responses were interchanged in the films; and in a fourth experiment the observers themselves viewed the infants immediately after stimulation. In a final experiment only the cries of the infants were presented to the graduate students who were asked to name the emotion. Sherman reports a great lack of agreement in naming the emotions.

⁹ K. C. Pratt, A. K. Nelson, and K. H. Sun, *The Behavior of the Newborn Infant*. Ohio State University Studies; Contributions to Psychology, No. 10, 1930.

¹⁰ J. H. Taylor, *Innate Emotional Responses in Infants*. Ohio State University Studies; Contributions to Psychology, No. 12, 1934, p. 81.

For the four stimulating situations students in psychology named from twelve to twenty-five different emotions. The graduate students were just as variable and inaccurate as the undergraduates. When the stimuli were known, the agreement was much closer, but there remained a considerable variation in opinion as to the emotion shown. When the stimuli and responses were transposed on the films, the medical students usually named an emotion appropriate to the stimulus shown. Sherman feels that knowledge of the stimulus was the deciding factor in the observer's choice of emotion to be named in most cases where the stimulus was known. There was no better success on the part of observers judging the emotions shown in crying—when the stimulus was known the expected responses were given, when it was not, the cry was thought due to hunger by nurses, colic by medical students, while a dozen emotions were named by students in psychology.¹¹

Pratt sums up the evidence about specific, innate patterns of emotional behavior in neonates by saying:

There seems to be little utility in the term emotion as applied to the behavior of newborn infants. That the palpebral reflexes and parts of the moro reflex may be present in later "fears" is not denied, but to label them "fear" seems pointless.¹²

Murphy and Murphy sum up the same experiments as follows:

The results of these experiments substantiate the inference from the work of the Shermans that no definite defense, fear, or rage responses could be discerned in very young infants.¹³

Landis, after evaluating an even broader group of studies dealing with the expression of emotions, concludes:

The main point is that the appearance of true patterns of expression

¹¹ Mandel Sherman, "The Differentiation of Emotional Responses in Infants," *Journal of Comparative Psychology*, VII (1927), 265-84, 335-51.

¹² K. C. Pratt, "The Neonate," in *Handbook of Child Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1933), p. 195.

¹³ G. Murphy and L. B. Murphy, *Experimental Social Psychology* (New York: Harper, 1931), p. 60.

in the human adult or infant or in higher animal forms, is a matter of extreme doubt.¹⁴

The present writer also has studied carefully the various experimental findings and concurs in the conclusion that specific patterns of emotional behavior probably do not occur in newborn infants. It remains to be shown, however, whether the genetic process of maturing gives rise to specific innate patterns or whether such patterns as seem common to large numbers of adults are due to learning through experience.

Maturation and Patterning

Gesell treats the influence of maturation as follows:

The role of maturation in the control of emotional behavior has had scant recognition. The primary emotions have been discussed as though they were elementary stable phenomena subject only to the changes in social conditioning. This is the implication in much that has been written about the emotion of fear. It seems to us that the problem has been oversimplified. Fear may be an original tendency, but it is subject to the genetic alterations of organic growth, as well as to organization by environmental conditioning. Such conditioning may determine the orientation and reference of fears, but the mode of fearing undergoes change as a result of maturation. Fear is neither more nor less of an abstraction than prehension. It is not a simple entity, it waxes and alters with growth. It is shaped by intrinsic maturation as well as by experience.¹⁵

Gesell does not supply the experimental evidence in this volume, but in another place he describes the behavior of infants confined in a small enclosed pen.

At ten weeks the child may accept the situation with complete complaisance; at twenty weeks he may betray a mild intolerance; a dissatisfaction, persistent head turning and social seeking, which we may safely characterize as mild apprehension; at thirty weeks his

¹⁴ Landis, *op. cit.*, p. 327.

¹⁵ A. Gesell, *The Guidance of Mental Growth in Infant and Child* (New York: Macmillan, 1930), p. 289.

intolerance to the same situation may be so vigorously expressed by crying that we may describe the reaction as fear or flight.¹⁶

In such an evolution of behavior, maturation may truly be an important and even determining factor, yet a specific innate pattern of behavior may not appear. Maturation has many ways of making itself felt other than by the development of specific response patterns. For example, the development of intelligence, of the capacities for insight, and for evaluating situations in the light of experience are distinct possibilities. Again, an infant may grow in expressive capacity as a result of gaining greater control and coordination of body and facial movements. Changes in glandular secretions certainly occur with development and may well have an influence upon emotional lability and temperamental manifestations. Increase in body size and control also leads to variety in experience with possible conditioning effects unknown to experimenters. Taken altogether, the problem of the influence of maturation is a very complex and elusive one on which much more experimentation is needed. We do have some additional information and most of it seems to support the concept that *maturation influences the expression of emotion by the development of capacities rather than the ripening of specific innate response patterns.*

Washburn studied the incidence and conditions under which infants smiled in response to the smile of another. She found smiling in all infants from eight to twenty weeks of age. This was followed by an increase in negative responses in children from twenty to forty weeks of age. Older children smiled easily in response to the smile of another. Washburn thinks that the negative phase was due to an increasing awareness of strangers and the later easy smiling to a developed sense of security in their presence.¹⁷

¹⁶ A. Gesell, "The Individual in Infancy," in *The Foundations of Experimental Psychology* (Worcester, Mass.: Clark Univ. Press, 1929), pp. 628-60.

¹⁷ R. W. Washburn, "A Study of Smiling and Laughing of Infants in the First Year of Life," *Genetic Psychology Monographs*, VI, No. 6 (Worcester, Mass.: Clark Univ. Press, 1926), pp. 403-537.

Bayley studied the crying of sixty-one infants placed in a series of standard situations each month from birth to one year of age. Like Washburn, she found that negative reactions to strangers increased up to about ten months. She attributes crying to fear in strange situations as when the child was brought into a strange room or taken from his mother by a strange person.¹⁸

H. E. Jones and M. C. Jones have emphasized the importance of maturation in the development of emotional behavior. Their interpretation of its role deals with the development of capacities and insights rather than with the unfolding of specific patterns of behavior. After extensive experimental studies of fear in children, they write:

Fear may be regarded as a response to certain changes in a total situation: changes requiring a sudden new adjustment which the individual is unprepared to make. The arousal of fear depends not only upon situational changes, but also upon the individual's general level of development. With a young infant, perhaps, the only changes which are fear-producing are those which substitute loud sounds for quiet, pain for comfort or loss of support for a previous state of bodily balance. As a child develops, his intelligence innately matures, and his perceptions become enriched through experience. New things startle him because of his keener perception. . . . Fear arises when we know enough to recognize the potential danger in a situation but have not advanced to the point of complete comprehension and control of the changing situation.¹⁹

The position taken by this report is in close agreement with this point of view about the role of maturity.

BRIDGES' CONCEPT OF THE GRADUAL DIFFERENTIATION OF BEHAVIOR PATTERNS

Bridges studied the emotional behavior of nursery school children over quite a long period of time. She believes that the

¹⁸ N. Bayley, "A Study of the Crying of Infants during Mental and Physical Tests," *Journal of Genetic Psychology*, XL (1932), 306-29.

¹⁹ H. E. Jones and M. C. Jones, "A Study of Fear," *Childhood Education*, V (1928), 136-43.

patterns of emotional behavior are formed gradually, or "differentiated," out of a general excitement as a result of experience. She writes:

Daily study of the emotional behavior of children in a nursery school has shown fairly conclusively that emotional behavior and therefore emotions develop as a result of experience. Children differ in their emotional behavior because of slight physical or hereditary differences, but mainly because of variations in emotional experiences prior to entering school and during the school period. But although children vary considerably in their emotional reactions, certain groups of them show elements in common in their behavior. This is probably due to the fact that children have many emotional experiences in common. They are subjected to similar emotion-producing situations both at home and at school.²⁰

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It seems probable that the visceral responses like others are somewhat uncoordinated at birth. A strong stimulus or a sudden call to action creates a general disturbance or excitement. It is difficult to tell whether a baby is frightened, angry or even pleasantly excited. . . . This general excitement . . . within a very short time . . . becomes somewhat differentiated into two general types of emotion as a result of experience . . . namely, distress and delight. These are distinguished by slight differences in visceral reactions, by the accompanying overt behavior and by differences in the provoking situation.²¹

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Distress in infancy is characterized by muscle tension, interference in breathing, change in facial color, trembling and crying. . . . Delight in an infant is characterized by relaxation of tension, or normal tonus, gurgling of saliva in the mouth and by free random movements and soft vocalization. . . . As the infant develops other emotions may be recognized. These are certain behavior patterns of the total organism and are characterized more by the specific motor responses than by the visceral responses. The particular emotion is also

²⁰ K. M. B. Bridges, *Social and Emotional Development of the Pre-school Child*, (London: Kegan Paul, 1931), p. 187.

²¹ *Ibid.*, pp. 200-1.

determined by the nature of the situation which prompts it, including both the internal bodily and external conditions. Thus distress becomes differentiated into fear at sudden shock and anger at interference. Delight also becomes further differentiated into joy and affection.²²

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There do not appear to be distinct visceral pattern reactions corresponding to the different common emotions. Flushing, quick breathing, perspiration, and so on, may be factors in such different emotions as fear, anger and delighted excitement. Moreover different children, while manifesting certain overt behavior responses characteristic of the same emotion, may exhibit different visceral changes.

Children also show changes in visceral as well as other responses with development. A child who loses his appetite with excitement during one stage of his development at a later stage may be very excited without the accompanying loss of appetite. . . . Thus, visceral pattern reactions, like any other form of behavior, seem to undergo processes of differentiation and coordination in the course of human development. . . . Partial or specific autonomic nervous responses seem to be conditioned through experience just as specific motor responses . . . become so conditioned. It also appears that visceral responses become differentiated, combined and conditioned in different ways in different children as a result of physiological environmental differences.²³

Bridges' long-term observations of the behavior of nursery school children are rather convincing. Some of the lack of consistency which she noted in the patterning of a particular type of emotional behavior may have been due to failure on her part to distinguish between the level of emotion achieved; or it may be, as Harold Jones has noted, that most emotional behavior in very young children is relatively superficial²⁴ and therefore highly variable. Richter also has reported great variability in

²² *Ibid.*, p. 202.

²³ *Ibid.*, p. 198.

²⁴ H. E. Jones, "The Galvanic Skin Reflex in Infancy," *Child Development*, I (1930), 106-10.

the psycho-galvanic reactivity of neonates.²⁵ In sum, Bridges was unable to find rigid patterning of behavior among children of the same age under similar conditions and even for a given child at various times. She therefore affirms that the patterning of emotional behavior is not innate, but acquired through experience, and that it is not permanently fixed once it is built up but is susceptible to more or less continuous modification and fluctuation according to the situation.

Goodenough has studied the development of the patterns of behavior for a single emotion, anger. She persuaded a group of mothers to keep a daily record of every instance of angry behavior by a child, together with a description of the situation in which it arose. Individual records cover periods of from one to four months. Goodenough's records show that a great variety of patterns are used to show anger and that the pattern is appropriate to the maturity level of the child and more or less appropriate to the situation. She lists kicking, stamping, jumping up and down, throwing self on the floor, holding the breath, stiffening the body, making the body limp, refusing to budge, pulling away or struggling, running for help, turning away bodily or turning the head, closing the mouth tightly (from forced feeding), refusing to swallow, pouting, frowning, throwing objects, reaching, grabbing, biting, crying, screaming. Verbal refusals, threats, calling names, arguing, and insisting also appear but later than the foregoing. Goodenough points out that with advancing age behavior during anger becomes more overtly directed toward a given end, while the primitive bodily responses are gradually replaced by somewhat less violent and more symbolic modes of action. She also notes a steady increase in resentfulness and sulkiness with advancing age, suggesting a more lasting visceral involvement.

The material presented by Goodenough,²⁶ taken with that of Bridges and with the observations of habit clinics generally,

²⁵ C. P. Richter, "High Electrical Resistance of the Skin of Newborn Infants and Its Significance," *American Journal of Diseases of Children*, XL (1930), 18-26.

²⁶ F. L. Goodenough, *Anger in Young Children* (Minneapolis: Univ. of Minn. Press, 1931).

shows that emotional behavior does not fall into innate specific patterns, invariable among individuals or even for a particular child. Instead, it varies from situation to situation. It changes with increasing age and experience and, in general, takes forms which are socially more acceptable and practically more effective in accomplishing the design of the individual. Evidently, then, emotional behavior is distinctly trainable.

Learning and Patterning

Most of the studies of the role of learning in emotional behavior have employed the conditioning technique, that is to say, they have dealt with shifting the response to an adequate or primary stimulus from it to some other stimulus which accompanies it. Such experiments generally have been successful. The work of H. E. Jones and of M. C. Jones has been particularly illuminating. They not only established conditioned emotional responses but also noted most of the other phenomena which have been found in conditioning experiments. These include: the irradiation of the excitation, discrimination among stimuli, temporary external inhibition, the experimental extinction of the response by repeated stimulation without reconditioning, and the spontaneous recovery of the conditioned response after a period of non-stimulation.²⁷ While such experiments show little to account for the actual patterns which emotional behavior presents, they do demonstrate the entire feasibility of re-educating children whose emotional reactions have become undesirably conditioned²⁸ and, taken with the work of Goodenough and Bridges, make a strong case for the general trainability of emotional behavior.

Habituation and Affective Behavior

The suggestion has been made that the frequent repetition of an act somehow endows that reaction with a dynamic value, and causes the individual to seek for its repetition. Pleasant

²⁷ H. E. Jones, "Conditioning of Overt Emotional Responses," *Journal of Educational Psychology*, XXII (1931), 127-30.

²⁸ M. C. Jones, "Emotional Development," in *Handbook of Child Psychology*, *op. cit.*, pp. 271-302.

affect is supposed to accompany its repetition and the unpleasant emotion of frustration to follow its inhibition. Smoking and various motor and social habits are thought to acquire affective value in this manner. The question is raised, also, in connection with aesthetic experiences. Is enjoyment enhanced or lessened by the frequent hearing of a given piece of music, the frequent viewing of a painting or landscape or by numerous rereadings of a given piece of poetry?

Thorndike claims that experiments prove that mere repetition of a behavior pattern does not increase the likelihood of its further repetition apart from the effects of the performance.²⁹ Beebe-Center reports conflicting experimental data which will not be reproduced here because the result of the summing up is not conclusive.³⁰ The problem remains an important one, especially in connection with training children and young people in aesthetic appreciation and in connection with the use of slogans and catchwords to influence public opinion or to produce social action. It is hoped that further research will be undertaken.

EMOTION AS A FUNCTION OF BLOCKED BEHAVIOR

Some psychologists do not regard emotion as ever the simple setting off of a given pattern of behavior by specific stimulation. Instead, they see emotion as arising when behavior is blocked and, therefore, as varying in form according to the situation in which the blocking occurs. Paulhan perhaps was the first to announce this theory. He says:

Whatever affective phenomenon we take, we can observe the same fact, the arrest of a tendency. From the most ordinary emotions to the highest and most complex feelings, we can always verify this law.³¹

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²⁹ E. L. Thorndike, *Fundamentals of Learning* (New York: Teachers College, Columbia Univ., 1932), p. 64.

³⁰ G. G. Beebe-Center, *Pleasantness and Unpleasantness* (New York: Van Nostrand, 1932), pp. 241-53.

³¹ F. Paulhan, *The Laws of Feeling* (New York: Harcourt, Brace, 1930), p. 16. Translated from edition of 1887.

By an arrested tendency, I understand a more or less complicated reflex action which cannot terminate as it would . . . if there were full harmony between the organism or its parts and their conditions of existence, if the system formed in the first place by man, and in the second by man and the external world were more perfect.³²

Paulhan goes on to justify his contention by various illustrations, including hunger, thirst, and even pleasant affect, as well as by more obvious cases of blocking. His argument is remarkably strong considering the fact that it was made fifty years ago.

More recently, John Dewey has presented the same hypothesis and Luria claims that Watson, Kantor, Marston, and MacCurdy have reached the same conclusion "showing that emotional behavior actually depends upon how freely the tension which is produced in the nervous apparatus as a result of one or another condition is discharged."³³

EMOTION AS A DISORGANIZATION OF BEHAVIOR

Luria joins the attack upon the specific pattern theory of emotional behavior and maintains that emotional behavior is not patterned at all but is rather a disorganization of the behavior with which the individual is trying to meet the situation. He writes:

The symptoms of the affective states and their structures are very differently described by different authors . . . who disagree markedly in the evaluation of the symptoms of the various emotional states. . . . We believe that the chief error consists in this, that the majority of authors were inclined to see always in the affective processes a functional connection with a special stable system. Therefore, the authors expected to see the affect always expressed by definite symptoms. . . . We take just the opposite position. In the revealed unstable affective symptoms we see a result of this, that the affect is each time a function of a dissimilar structure . . . that the symptomatic affect depends upon the integrated setting of the personality. . . . The detailed analysis of the affective processes should not proceed from the

³² *Ibid.*, p. 17.

³³ A. Luria, *The Nature of Human Conflicts* (New York: Liveright, 1932), p. 13.

mechanism of the affect and a morphological system; rather, it must be based upon a detailed analysis of the dynamics. . . . The degree of expressiveness of that or another system depends not so much on its anatomical position as upon its inclusion in one or another complicated psychological structure. The expressiveness of the system is conditioned, consequently, not by its morphological, but by its functional situation.³⁴

Luria's conclusions are based upon a most interesting and significant series of studies of human subjects under undoubted conditions of emotional stress. The subjects included students awaiting examination for exclusion from university study already begun, criminals (especially murderers) immediately after apprehension, and individuals suffering from artificially aroused conflicts and neuroses. His concept that all emotion is a disorganization of behavior rather than a pattern of behavior perhaps is too extreme. It may be accounted for by the large number of subjects whom he examined under the third level of intensity of emotional involvement, in which we know that extensive disorganization of behavior does occur. While he may not be correct in assuming that the disorganization inherent in emotion of this intensity will occur under conditions of mild shock or even strong emotion, nevertheless, Luria has made a splendid contribution by his experimental demonstrations that *affective behavior is not patterned with regard to stimulation but varies according to the functional situation.*

LEWIN'S DYNAMIC THEORY OF EMOTION

Kurt Lewin has developed a still more dynamic theory of affective behavior. He premises a functional interrelationship between the individual and the situations which are met. The needs and behavior objectives of the individual are the sources of the energy tensions discovered, but the various elements in the external situation establish the final structure of the total psychological field from which behavior emerges. The study of affective behavior becomes, then, the study of the vectors

³⁴ *Ibid.*, pp. 171-72.

of force within the individual's psychological field, with behavior always governed by the dynamic relationships implied.

Objects are not neutral to the child but have an immediate psychological effect on its behavior: many things attract the child to eating, others to climbing, to manipulation, to raging at them, etc. These imperative environmental facts—we shall call them valences—determine the direction of the behavior. Particularly from the standpoint of dynamics, the valences, their kind (sign), strength and distribution must be regarded as among the most important properties of the environment.³⁵

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The valence of an object usually derives from the fact that the object is a means to the satisfaction of a need. The kind (sign) and strength of the valence of an object or event thus depends directly upon the momentary condition of the needs of the individual concerned. . . . The valences change also with the momentary state of the needs. . . .³⁶

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To understand and predict psychological behavior (B) one has to determine for every kind of psychological event (actions, emotions, expressions, etc.) the momentary whole situation, that is, the momentary structure and state of the person (P) and of the psychological environment (E). $B = f(PE)$. Every fact which exists psychologically must have a position in this field and only facts which have such position have dynamic effects (are causes of events). The environment is, for all of its properties, to be defined not physically, but psychologically.³⁷

This theory may be called the "dynamic theory" of emotional patterning, for it is apparent that the "vectors" of psychological force determine the patterns of emotional behavior and that the "valences" involved fluctuate frequently according to the needs and experience of the individual.

³⁵ K. Lewin, "Environmental Forces," in *Handbook of Child Psychology*, *op. cit.*, p. 596.

³⁶ *Ibid.*, p. 597.

³⁷ *Ibid.*, p. 598.

RATIONALIZATION OF THE VARIOUS HYPOTHESES

The material presented above certainly justifies the conclusion that all emotional behavior cannot be regarded as specific innate patterns of response to certain stimulation. Nevertheless, certain elements of behavior do appear to be innate, though the supporting evidence has not been presented in this report. Laughter, crying, changes in tones of the voice, including alteration in timbre and the occurrence of the vibrato, and some facial expressions seem to be inborn forms of expression.³⁸ Certain visceral and endocrine reactions are also undoubtedly innate. The important point is that these elements do not appear inevitably as a result of specific stimulation nor universally as parts of particular patterns of emotional behavior.

Instead of fixed patterns, we find that emotional behavior changes as various capacities for expression mature, as the developing organism gains in intelligence and in interpretive capacity, and as new behavior goals become important. Ultimately, we find that the functional situation determines the form of affective behavior, giving rise to those patterns which experience and the shifting psychological field indicate as most likely to resolve tension and produce optimum conditions for the individual. While enough innate elements may exist to afford a common language of emotion which can be employed in the drama, in music, and between adults generally, we must nevertheless regard the expression of emotions as chiefly determined by experience and learning and therefore as highly trainable. Wherever the terms fear, anger, jealousy, grief, love, or joy may be used in this report, they are not to be understood to imply fixed paths or patterns of response. Instead, they will signify the varying behaviors of individuals who have common dynamic (goals, need-fulfillment, adjustment-aims) ends.

³⁸ See Dumas, *op. cit.*; Landis, *op. cit.*; Seashore, *op. cit.*; F. H. Lund, *Emotions of Men* (New York: McGraw-Hill, 1930); G. S. Gates, "The Role of the Auditory Element in the Interpretation of Emotion," *Psychological Bulletin*, XXIV (1927), 175.

EMOTION AND THE EDUCATIVE PROCESS

RELATIONSHIP BETWEEN AFFECTIVE BEHAVIOR AND PERSONAL GOALS

The crucial concept emerging in this chapter cannot be stated too strongly. It is that the patterns of behavior through which affects show themselves are not primarily functions of certain neural patternings set off by appropriate stimulation. Such specificity does not arise as a result either of inborn or matured structure. Instead, affective behavior varies from situation to situation and is structured according to the dynamic relationships which exist between the situation and the needs of the individual. Naturally both the situation and the needs are interpreted by the individual in terms of earlier experiences, though not entirely through the mechanical process of simple conditioning. Generalization and other processes of higher mental organization have a role, especially in the determining of the goals (quasi-needs) of the individual as he feels them. Just here, the importance of attitudes, of value concepts, of loyalties and purposes becomes apparent. Most human behavior is carried on, not on the elemental levels of procuring food and avoiding danger, but in connection with very elaborate social and economic processes by which the individual's adjustment is maintained. For further insight into the affective behavior of human beings, then, we must turn to a study of the processes by which attitudes, value concepts, and goals take form in the human. Affective behavior undoubtedly is biologically adaptive but, in the human being, both its form and its causes are to be found and understood only as we understand what an individual is trying to get out of life and why he thinks that certain behavior is the road to optimum conditions for him.

GENESIS OF ATTITUDES

Earlier in this report, the point was stressed that attitudes find their biological utility in the fact that they are most often related to self-interest. This accounts in large measure for the affective loads which these attitudes carry, but in no way ac-

counts for their structure and content. Certainly ~~we are not~~ born with attitudes, nor do they appear solely as a result of genetic maturing. If this were true, we should have less social progress but more stable social relations because more people would think alike. Perhaps our life would be more like that of the ants or bees—but such is not the case. The widest possible individuation occurs in the possession of attitudes, unless the environment is very strictly regulated with regard to their occurrence, as in the fascist countries or other dictatorial situations. Even in these, the inevitable versatility of human thought ultimately conquers artificial restraints. But attitudes, themselves, are often very rigid dominators of behavior. The very necessity which people have for rationalizing and regulating behavior by attitudes and value concepts, in consequence of the lack of innate behavior patterns, often renders large populations the easy prey of demagogues or of interested persons consciously seeking to control opinions for exploitive purposes.

Allport has given us an excellent analysis of the processes by which attitude patterns are formed. He suggests four ways in which experience produces "the mental and neural state of readiness" which exerts a "directive or dynamic influence" upon behavior.

One of the chief ways in which attitudes are built up is through the accretion of experience, that is to say, through the integration of numerous specific responses of a similar type. It is not, as a rule, the discrete and isolated experience which engenders an attitude; for in itself, the single experience lacks organization in memory, meaning, and emotion. An attitude is characteristically a fusion, or, in Burnham's terms, a "residuum of many repeated processes of sensation, perception and feeling."³⁹

Allport criticizes the concept of integration as the basis for all attitudes on the ground that this implies that the infant is "totally specific ~~and~~ fragmentary in his responses, and that in

³⁹ G. W. Allport, "Attitudes," in *Handbook of Social Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1935), p. 810.

childhood, his attitudes become gradually pieced together and that in adulthood he becomes still more thoroughly unified."⁴⁰ Such a sequence is often untrue.

A second way in which Allport believes attitudes are formed is by individuation or differentiation.

The original matrix of all attitudes is coarse, diffuse, and non-specific; it is the mass-action found in infancy, which tends only to have a general positive (adient) or negative (abient) orientation. From this point of view, it might be said that in the beginning, the infant has two primordial, non-specific attitudes, namely, approaching and avoiding. From this matrix, he must segregate action-patterns and conceptual systems which will supply him with adequate attitudes for the direction of his adaptive conduct.⁴¹

The third source of attitudes postulated by Allport is "dramatic experience or trauma."

It is well known that a permanent attitude may be formed as the result of a compulsive organization in the mental field following a single intense emotional experience. Probably everyone can trace certain of his fears, prejudices and predilections to dramatic incidents of childhood . . . although the traumatic experiences of childhood seem to be especially important, there is, all through life, a susceptibility to the influence of shock. . . . Even in old age, radical changes of attitude through circumstances of dramatic moment are not unknown.⁴²

The fourth condition under which attitudes are formed, Allport writes, is when "through the imitation of parents, teachers or playmates, they are sometimes adopted ready-made."⁴² The psychological basis of this imitation Allport does not make clear—perhaps he might well have used the term suggestion or identification. Nevertheless, we must agree with him that "even before he has an adequate background of appropriate experience, a child may form many intense and lasting attitudes toward races and professions, toward religion and

⁴⁰ *Ibid.*, p. 810.

⁴¹ *Ibid.*, pp. 810-11.

⁴² *Ibid.*, p. 811.

marriage, toward foreigners and servants, and toward morality and sin."⁴² This would seem to be true because the posture, facial expression and tonal qualities of responding persons as well as the words they use, reveal to children how they feel about the person, race or situation being considered at the moment. Such suggestions undergo frequent re-enforcement, too, from other individuals whose attitudes the child values highly or with whom he is in close affectional relationship. The strength of attitudes acquired in this manner often is astonishing. As Allport says:

It frequently happens that subsequent experience is fitted into the attitude thus uncritically adopted . . . every contact is prejudged, contradictory evidence is not admitted, and the attitude which was borrowed second hand is triumphant . . . and tenaciously held against all evidence to the contrary.⁴²

Many genetic studies of the formation of attitudes are cited in support of Allport's description of the modes by which attitudes are formed and the evidence presented appears conclusive. For example, Vetter and Green⁴³ studied the genesis of the anti-religious attitudes of 350 members of the American Association for the Advancement of Atheism.

Many of these cases reported that the accumulation (integration) of influences derived from the reading of history and science resulted in the gradual formation of their attitudes. Others spoke of their atheism as a by-product (differentiation) of a more general preceding point of view, e.g., a philosophy of materialism. Still others traced their convictions to sharp (traumatic) experiences of disgust or grief. Occasionally, they reported the influence of a friend whose atheistic views they adopted (ready-made).⁴⁴

Lasker's⁴⁵ study of children's attitudes toward race found that:

Cumulative experience (integration) is a relatively minor factor.

⁴³ G. B. Vetter and M. Green, "Personality and Group Factors in the Making of Atheists," *Journal of Abnormal and Social Psychology*, XXVII (1932), 179-94.

⁴⁴ G. W. Allport, *op. cit.*, pp. 811-12.

⁴⁵ B. Lasker, *Race Attitudes in Children* (New York: Holt, 1929).

The dramatic (traumatic) experience likewise occurs, but is not usually the principal cause. More often the ostracism or segregation of a given race is observed by a child before he has any clear prejudice of his own. In these cases, it may be said that the specific prejudice develops from the preceding attitude toward exclusion or toward the separation of what is "desirable" from what is "undesirable" (through differentiation). But the outstanding source of racial prejudice is in the assumption of the attitudes of others (ready-made). . . . Through derogatory and derisive names, through humorous stories, through persecution and through legend, "the social order itself conveys lessons that are absorbed without conscious learning."⁴⁶

Davis listed twenty-five formative influences in his study of the genesis of revolutionary attitudes among 163 outstanding communist leaders in Russia.⁴⁷ He found that:

The cumulative experiences of persecution had an integrative effect upon the attitudes of the revolutionists. Traumatic incidents are also frequently listed. . . . The turning of vague discontent into revolutionary channels is an instance of differentiation; and the influence of associates undoubtedly signifies in some cases the adoption of attitudes ready-made.⁴⁸

The influence of suggestion on attitudes has been studied by a number of investigators especially in relation to the relative strength of the prestige of experts and of the prestige of the majority. Moore⁴⁹ found that in matters pertaining to speech and to morality, college students more frequently change their own opinions to conform to those of the majority, but that in matters of aesthetic judgment the expert is more influential. Sorokin and Boldyreff likewise found marked suggestibility to the aesthetic opinion of experts.⁵⁰ Following the false suggestion

⁴⁶ G. W. Allport, *op. cit.*, p. 812.

⁴⁷ J. Davis, "A Study of One Hundred and Sixty-three Outstanding Communist Leaders," *Proceedings of the American Sociological Society*, XXIV (1929), 42-55.

⁴⁸ G. W. Allport, *op. cit.*, p. 812.

⁴⁹ H. T. Moore, "The Comparative Influence of Majority and Expert Opinion," *American Journal of Psychology*, XXXII (1921), 16-20.

⁵⁰ P. A. Sorokin and J. W. Boldyreff, "An Experimental Study of the Influence of Suggestion on the Discrimination and the Valuation of People," *American Journal of Sociology*, XXXVII (1932), 720-37.

that musical critics preferred one of two identical Victrola records, the great majority of students actually heard these records as different and agreed that the one designated was preferable. "Marple⁵¹ found that people are influenced greatly by both majority and expert opinion on social and political issues and that the influence of the majority seems to be more marked than that of the expert."⁵²

Motion pictures repeatedly have been shown to have influence in shaping attitudes either by affording dramatic experience or by passing on ready-made attitudes by suggestions associated with prestige. The work of Peterson and Thurstone⁵³ is particularly significant. Using objective measures of attitudes before and at various periods after the children had viewed the films, they found that immediate and persisting changes in attitudes resulted. Increased dislike for negroes, more liking for Germans and Chinese, increased dislike for war, and greater sympathy for criminals were effects definitely measured after the showing of certain films.

Fixity of Attitudes

While the description of the modes by which attitudes are established demonstrates that they may be modified and suggests the technique by which such modification may be accomplished, attitudes may remain relatively fixed over long periods of time. Allport follows Lippmann's theory of public opinion⁵⁴ in this matter.

It is not possible, as he points out, for human beings to respond to every stimulus-event with complete and intelligent discrimination. People have neither the time, the knowledge, the inclination, nor the requisite intelligence for meeting adequately the subtle and varied

⁵¹ C. H. Marple, "The Comparative Susceptibility of Three Age Levels to the Suggestion of Group Versus Expert Opinion," *Journal of Social Psychology*, IV (1933), 176-86.

⁵² G. W. Allport, *op. cit.*, pp. 834-35.

⁵³ R. C. Peterson and L. L. Thurstone, *Motion Pictures and the Social Attitudes of Children* (New York: Macmillan, 1933).

⁵⁴ W. Lippmann, *Public Opinion* (New York: Harcourt, Brace, 1922).

demands of their intricate environments. The best they can do is to classify the events of life and to respond to them, not on their own individual merit, but according to their assumed membership. Clichés are made to cover the facts of life. In place of rational adaptation, there is called into play merely an approximate, rough and ready attitude. . . . Because they save both time and effort, stereotyped attitudes offer great resistance to change. They resist the inroads of new contradictory experience and are retained as long as they satisfy and protect the individual.⁵⁵

Clichés are so common to all of us that few take the trouble to examine their validity or to consider their effects on behavior. "Once a thief always a thief," "You can't make a silk purse out of a sow's ear," "You can't change human nature," "There will always be wars and rumors of wars," "The poor you shall have with you always," "A man can always find a job if he is willing to work," "You can lead a horse to water but you can't make him drink." All of us have heard these or similar *clichés* frequently announced in antagonism to some project of education or reform. Many of our judgments of people, of events, and particularly of problem situations are based upon attitudes as generalized and lacking in discrimination as these; but *clichés* can be changed too!

Role of Emotion in Changing Attitudes

Undoubtedly, emotions are the most potent and frequent factors in the change of attitudes. When a crisis arrives and reactions based on the old attitudes do not afford a solution, when grief at the loss of a loved one who has sought in vain to influence us finally overwhelms us, when economic disaster, a shocking crime, or a horrible accident come into our immediate experience, then we are willing to admit that we were wrong, we are willing to adopt a new attitude. When masses of people are stirred by dramatic events then the moving power of the event itself is enhanced by the awareness of the emotions of those around us and new attitudes are born more easily.

⁵⁵ G. W. Allport, *op. cit.*, p. 813.

Sometimes these new attitudes adopted under the stress of traumatic events are merely other *clichés* no better than the old. The following secured by demagogues and crackbrains in times of economic and political stress is evidence enough of this. On the other hand, sometimes the emotional experience seems to break faith in old attitudes but does not point the way immediately to a new belief. Then an attempt may be made to get at the facts and the individual will avoid situations calling for a clear-cut taking of position. The usual lag of social reform, after obvious evidence of the need for reform is available, shows that for the mass of people attitudes are not widely readjusted on a rational basis. In contrast, the rapid change of attitudes produced by strong leadership in times of national stress indicates the important role of emotions in creating readiness for change, and the equally forceful role of suggestion and prestige in determining the direction of the changes. The importance of social and political leadership motivated by sound ideals and a devotion to realities is apparent.

Role of Education in the Genesis of Attitudes

The importance of the experiences of childhood and adolescence for the establishment of attitudes has been stressed. The school has its genuine place as the locus of many of these experiences; but its purposed influence in many cases is not the determining factor in the attitudes which emerge. The family, playmates and schoolmates, accidents and events of wider social consequence (disasters, political campaigns, strikes, economic depressions, wars) all are influential in the situations where concept crystallization takes place and attitudes are born. None the less, the role of the school remains highly important.

In the first place, it is the task of the school to expose the individual to a great body of facts. These facts need to be sufficiently balanced and broad to lessen the likelihood that attitudes will be founded on biased or inadequate knowledge.

In the second place, it is the school which must help children to understand the dynamic nature of life and of social processes. As children understand the present as a point along the path of the physical, social, and spiritual evolution of mankind, they may come to understand and expect the necessity for further adjustments and changes which will involve themselves and their own attitudes.

Finally, teachers and pupils can seek together to find out the values in life that have emerged as of greatest importance in the human struggle for progress. These value concepts, once they are adequately grasped, can act as important points of reference, guiding the modification of attitudes in periods of social change.

Perhaps such an educational doctrine seems pitifully inadequate in the face of other social forces which play upon children and young people. But if conscientiously carried out, it might be enough. At any rate, the experimental application of these principles is advocated.

ATTITUDES DEFINE AREAS OF EMOTIONALITY

It has been noted earlier in this chapter that the patterning of emotional behavior is a function of the interplay between the situation and the behavior intention of the individual. Certain types of these dynamic interrelationships between situation and desire give rise to emotional behavior which may be described as love, anger, fear, jealousy, joy, grief, resentment, or some other emotion. Very important in the functional organization of such psychological situations are the attitudes and value concepts of the participating individual. Loss of status, a frequent cause of emotion, can be described only in terms of the status which the individual aspires to hold or attain; loss of security can be understood only in the light of a knowledge of what a person thinks he needs in order to be secure; and the depth of a grief can be known only in terms of the value in life of the lost person or opportunity. Attitudes and value concepts define for us the areas of experience which will carry the possi-

bilities of arousing emotional responses. In the forming of attitudes, we are formulating our own affective lives. Psychiatrists understand this, and before they make any suggestions for remedying bad situations, always try to come to an understanding of the wishes, aspirations, and value concepts of their patients. Psychoanalysis is chiefly an attempt to assist a person to get at his own deepest attitudes by delving into his own early experiences.

There are many persons who need to maintain a more or less continuous consciousness of the important relationship between attitudes and emotional behavior. School teachers, truant officers, probation officers, physicians, social workers, juvenile court judges, and pastors would do a much better job if they judged behavior less in terms of social and moral convention and more in terms of the attitudes which led to unacceptable behavior under given circumstances. The remedial treatment should lie in helping the individual to formulate a new, socially useful attitude⁵⁶ rather than in punishing him without this re-education or putting him on parole without providing for the stimulation of new value concepts. Indeed, this neglect to consider attitudes and value concepts as the basic definers of behavior may account for the apparent failure of the "enlightened" treatment of juvenile delinquents. The new socially-useful attitudes that are sought cannot be built out of purely altruistic concepts in the child. The self-interest of the individual must be provided for too; such is the law of the affective life of the organism. The reason for conforming, for being "good," must not be abstract but concrete, must not be negative but positive value for the individual. As idealists we may not enjoy believing this, but as psychologists we must accept the laws of behavior which we find.

AESTHETIC EXPERIENCE AND ATTITUDE PATTERNING

A very fertile field awaits the student of the effects of aesthetic experiences upon the establishment of attitudes and of

⁵⁶ K. Dunlap, *Habits: Their Making and Unmaking* (New York: Liveright, 1932).

patterns of emotional behavior. To date, little research has been completed, but we do know that music, dancing, nature experiences, motion pictures, museums, dramatic presentations, and various expressional activities play a part in the moulding of value concepts, attitudes, and patterns of affective behavior. The use of aesthetic media to establish emotionalized values or beliefs about political, economic, and social matters is highly significant for educational practice—witness the rise of the “new art” in all of its forms in Russia. Some “progressive” schools are now extending markedly the aesthetic experiences of their pupils and such experiments should be watched with interest and the results measured as accurately as possible. Much more experimental work needs to be done under set-ups in which adequate scientific measurement and evaluation are employed.

DEVELOPMENT OF AESTHETIC APPRECIATION AND EXPRESSION

Just as the behavior patterns expressive of various strong emotions gradually are differentiated and built up as a result of experience, so do patterns of aesthetic expression and appreciation grow. In other emotions, the development of certain patterns must await the maturing of certain capacities. The same holds true of aesthetic expression and appreciation—it can develop only as the maturing organism develops certain capacities. The University of Iowa, under the leadership of Dean Seashore has distinguished itself for research in this field, having concerned itself especially with music and with the graphic arts. Little of the experimental material needs to be summarized here, since it aimed originally at the development of measures by which talent could be recognized and we are more interested in knowing the evolution of capacity and behavior in the general run of children. Certain of the material bearing upon the graphic arts will be presented, however, for it has general applicability.

We took as a starting point the attempt to discover if aesthetic

sensitivity, insight, or judgment is present in children apart from instruction. . . . We selected four general categories of problems having general significance: one involving problems of balance, one centering about problems of rhythm; another, problems of color harmony, a fourth, problems of compositional unity. We do not regard balance, rhythm, harmony, and unity as . . . rules, laws, axioms We prefer to regard them as realities in art and as aesthetic values of qualities that are virtually a part of man, that appear in the art of any age and any people.⁵⁷

The conclusions of the studies reported are: (1) Untaught children can do problems in balance, some beginning at the age of two and practically all by five years of age; (2) response to rhythm appears in a few by the age of three and is characteristic of the group by the age of five; (3) unity is sensed by a few children at five years of age and by most at the age of eight; and (4) color harmony sensitivity appears in few children before the age of twelve years. Notice is taken also of the fact that the ability to sense these aesthetic values is independent of general intelligence. In so far as Dr. Meier's tests are valid, it appears, then, that the abilities for appreciating the various basic aesthetic values in art appear at different ages from infancy to adolescence and occur fairly universally among children. Since most of these abilities are shown by eight years of age, there is every reason to suppose that a rich body of experience leading to well-developed appreciation would be enjoyed greatly by children from the third grade on throughout their school life, and that much could be introduced even before the third grade.

Another study made at Iowa deals with the development of "creative imagination," which is regarded as one of the factors differentiating the talented from the untalented child.⁵⁸ An ingenious method for discovering and recording what a child

⁵⁷ N. C. Meier, "What We Know about Talent in Children," *Annual Report of the Western Arts Association*, 1934, pp. 143-63.

⁵⁸ See the interesting volume by N. C. Meier, *Studies in the Psychology of Art*. University of Iowa Studies in Psychology No. 17, Psychological Monographs, XLV, No. 1, 1933.

is actually thinking about while he is painting or drawing was used in this study with the results showing that "creative imagination" seldom appears before five years of age.

More significant findings revealed that creative imagination always utilizes and, in fact, is based upon experiences which the child has undergone. Pictures in magazines and newspapers, in scrapbooks and home collections, emotional experiences of the child, and travel experiences are all elements, with a fusion of these elements into original forms occurring after a certain time period has elapsed. The experimenter reports that children possessing creative imagination display a critical attitude toward their work and are articulate about it. Studies of the aesthetic values of the surroundings of the children showed that "in general, the better permanent environment surrounds the more artistically competent child, but to this general conclusion several exceptions exist."⁵⁹ The greatest difference between the talented and the non-talented was found in the children's own books and pictures. No marked behavior differences were noted between the "talented" and the "untalented" except that the talented seemed more interested in the "visual world" about him. This is regarded as even more important than differences in environmental background. The general conclusion is that "the one aspect of highest significance in the superior artistic child, as in the adult, is an aesthetic sensitivity and judgment. That this exists in the child can no longer be doubted."⁶⁰

The cited findings need confirmation and expansion by further experimental research in this field. Happily, the University of Iowa itself is continuing its interesting and valuable work.

Much interesting work with school children is to be seen at the Cleveland Art Museum under the direction of the Curator for Education, Dr. Thomas Munro. Aesthetic expression, through the graphic arts, also has been developed distinctively at the Indian School at Santa Fe, New Mexico. Charles Woodbury, the painter of marine studies, has carried on interesting experiments in developing expressive drawing among artisti-

⁵⁹ N. C. Meier, *op. cit.*, p. 155.

⁶⁰ *Ibid.*, p. 160.

cally untutored adults and children in Boston and in Maine.⁶¹ Experimentation with various media of expression, carried on in centers of adult education and recreation in various parts of the country, have revealed the hunger which large numbers of people feel for some mode of expressing their feelings. Children, as well as adults, share the same yearning, as activities at Maplewood, New Jersey, at the Metropolitan Museum, and at the Art Guild in New York unquestionably have shown. The time is ripe for public education to undertake experimentation in this field on a very wide base, using many media, granting much freedom to pupils, and freeing itself from the tradition fostered by the routine work usual in teacher-training institutions.

CONCLUSION

The understanding that patterning of emotional behavior is so greatly a matter of experience should have a very positive effect upon the objectives of education. Insight into the part played by attitudes in defining the regions of affective experience should stimulate a great deal of scientific curricular research, employing a wide variety of materials and methods. The possibilities for great enrichment of life by wholesome affective experience constitute a challenge to all interested in aesthetics. Emotions and strong feelings are not things to be feared and avoided—they have their roots in biological utility. When strong unpleasant emotions express themselves in asocial or amoral ways, they give convincing evidence that something is wrong in the life of the individual. Courageous experimentation is needed until educational curricula are found which will lower markedly the incidence of delinquent and pathological behavior, which will impel children to want to go to school instead of desiring to avoid it. A hunch suggests that schools must offer a challenge to children rather than the “soft” pedagogy of letting them do as they wish.

⁶¹ C. Woodbury and E. W. Perkins, *The Art of Seeing* (New York: Scribner's, 1924). Also M. Bird, *A Study in Aesthetics*. Harvard Monographs in Education, (Cambridge: Harvard Univ. Press, 1932).

V

AFFECTIVE MATURITY

WE THINK OF SCHOOLS as established to help children grow up. Systematic experiences of certain facts and situations are provided for our pupils with the hope of influencing the evolution of their behavior away from those patterns which characterize infancy and toward those patterns which characterize responsible adjusted adulthood. It is desirable that this evolution shall occur in affective behavior as well as in intellectual life. Children's ways of meeting danger and frustration, their appreciation of the beautiful in its different forms, their fortitude in enduring pain and disappointment, and the goals for which they are ready to give their all—these are expected to change as a result of what children experience and learn in their everyday life at school.

Educators would like a chart or blueprint of affective development. They would like not only a definition of affective maturity, but a description of mature behavior in each of the categories or aspects of activity where affective factors are important influences. They would like to know the normal intermediate stages between infantile behavior and adult or mature ways of behaving. Such material could be used as a basis for establishing the objectives of education and for setting up experimental situations in which the value of various curricular materials and methods could be tried out scientifically. Unfortunately, so easy an answer to our educational dilemmas is extremely improbable.

WHAT IS AFFECTIVE MATURITY?

The process of maturing involves the building up of the capacity for the realistic differentiation of patterns of affective

behavior appropriate to the different situations in which the individual finds himself. This process is highly individual, for behavior always is a function of the dynamic relationships between the attitudes (quasi-needs) of the individual and the immediate situations in which he finds himself. The patterns of affective behavior which he shows are, then, the results of the attitudes ingrained by experience and self-interest. Naturally, innate structural factors are more influential in determining some behavior patterns, and experiential factors are relatively more important in others. In sexual behavior, for example, structural factors are more important, while experiential factors are more important in shaping behavior in response to fear of unemployment or of poverty in old age. The important point is that the emerging behavior must be appropriate to satisfy the individual's needs in the culture in which he finds himself and that the culture sets certain limits upon the behavior which it will accept. There is the further point that the behavior, to be appropriate, must take into consideration the realities of the physical world and of other people's needs. To gain insight into what constitutes affective maturity, then, is to learn what behavior will satisfy needs in the culture in which the individual lives, while it takes all aspects of reality into consideration. The problem which educators face, once they know this, is to find out what experiences will give developing young people the attitudes and ruling value concepts that can be the basis for valid choices of behavior patterns in the situations which they will meet.

Additional Studies Needed

Unfortunately psychologists cannot describe to educators the behavior that will satisfy needs in our culture. Such evidences as now exist are mostly clinical, have not been gathered in a systematic way, are based on studies of pathology and not of normal development, and do not have a common terminology which permits their synthetic organization into a scientific body of knowledge. We do know that "mature" behavior is

marked by considerable restraint of the overt and forceful expression of unpleasant emotions and by considerable symbolic and "sublimated" expression of these emotions; but we have little knowledge of the range of behavior which will be accepted as mature under different circumstances in our culture.

About the normal developmental sequence of affective behavior, we also know very little. Such genetic studies as we have, based on the continuous observation of the same children, are fragmentary and deal most often with very young children. An enormous and highly important field of research is evident here, and studies now in progress in California, New York, and Massachusetts can be expected to make important contributions, particularly to our understanding of adolescence. But the findings of each should be checked by further studies, and the problems which they are uncovering, but not solving, are so vast that very extensive expansion of research in this area is greatly to be desired.

It seems wisest at the outset to inaugurate separate studies of the various aspects of affective life. Case studies, based upon the systematic observation and recording of the behavior of the same children viewed year after year, should be made. Studies employing experimental set-ups similar to those employed by Lewin and natural functional situations similar to those being observed by H. E. Jones at his clubhouse for adolescents are needed. Other observers will have to participate directly in the home life of their subjects. We must interest ourselves in discovering not only the changes in behavior which emerge with increasing age but the changes in attitude which underlie these behavior changes and the experiences which led to the changes in attitude. It is admittedly extremely difficult to catch these causal sequences in growing children, but such is our task.

Aspects of Affective Development Needing Description

Aspects of behavior for which we need to establish normal behavior ranges at different age levels can be listed. They in-

clude: relation to father and mother, relationship to a succession of social groupings marking an expanding social adaptation, manner of meeting frustration, forms of expression of sex-motivated behavior, manner of meeting situations evoking fear, manner of meeting situations involving success, emotions exhibited on experiencing various types of music, movies, dramas, etc., ethical loyalties displayed under certain conditions, sensitiveness to sympathy-evoking situations, affective aspects of behavior accompanying or following the reading of different types of literature, including voluntary choice of reading materials. The attempt should be made to record the behavior ranges normal to each age and the sequences normal to adjusted development, but this should be done in descriptive rather than mathematical terms, especially during the early stages of research. The mathematical manipulation of unequal units of unlike material already has wasted a tremendous amount of time and effort for psychologists and educators. It is greatly to be hoped that factor analysis techniques will be developed further and applied carefully to this material as rapidly as data based on careful observation and *validated* measurement is obtained; but the application of factor analysis techniques to poorly understood data or to test results of doubtful validity cannot reveal obscured truth by any mystical hokus-pokus. The clear-cut description and validation of the elements evaluated must come first.

CRITERIA OF AFFECTIVE MATURITY

Mandel Sherman¹ has suggested the following as a definition of emotional maturity:

Emotional maturity, for an individual, may be regarded as the state of being prepared to make choices of an emotional nature when freed from the routinized supervision of those responsible for him.

This definition has the great merit of implying that maturity depends upon mental conditions within the individual which mediate his choices. Besides physiological conditions, these

¹ In verbal interview, May 1935.

could be only attitudes and value concepts which determine the state of cerebral gradients in the various situations. But the question of which attitudes and value concepts mark maturity remains unanswered. Some criteria of mature behavior must be accepted before the "normal" behavior range can be established. These criteria could be genetic, that is to say, physiological; they could be social or cultural; or they could be ethical or religious.

A genetic criterion of mature behavior would demand the achievement of patterns of affective behavior that are effective in resolving physiological tensions and disequilibria and that result in a strong hedonic tone of pleasure in the carrying out of fully integrated behavior.

A social or cultural criterion of mature behavior would demand the achievement of patterns of affective behavior such as are common and accepted within the population of a given area, and the avoidance of patterns of affective behavior which run counter to the mores or which arouse tension and antagonistic action in a considerable number of other persons.

An ethical criterion of mature behavior would demand the achievement of patterns of affective behavior that conform to certain basic value principles which are accepted by a given individual or population, and the avoidance of patterns of affective behavior that are contrary to these value principles in their effects upon oneself or upon others.

Lack of Harmony among Criteria of Maturity

The patterns of affective behavior which would be characterized as mature by these different criteria are by no means identical. For example, the genetically mature expression of sexual emotion is condoned by society only under well-defined and rather limited circumstances. Yet society is not consistent within itself; the circumstances under which sexual emotion is condoned vary markedly from country to country, from time to time, and from cultural group to cultural group. Hate patterns and loyalty patterns are rooted in cultural or ethical

factors rather than in genetic ones. Socially, it is regarded as a mark of maturity in the United States to hate communism while in much of Russia the affectively mature hate capitalism. Fear patterns also are cultural patterns rather than innate ones—it is much more common to shudder at the sight of a snake than at the sight of speeding automobiles, despite the fact that thousands are killed and hundreds of thousands injured by automobiles every year while snake-bites are very infrequent. War constitutes a grave menace to civilization, yet there is no general social or ethical agreement as to what constitutes affectively mature behavior with regard to it.

Not only do the various criteria of affective maturity fail to agree with each other but a single criterion is not consistent within itself, in that exceptions have to be made in its application. For example, a much wider range of emotional behavior is condoned socially in the ill, the aged, the artistic, the drunken, the powerful and the very rich, than is condoned in the ordinary run of people. Conversely a much narrower range of emotional behavior is condoned in certain well-defined situations for "foreigners" and Negroes, whether they be adults or children. Under special conditions, too, laborers, strikers, Communists, and criminals suffer a narrowing of the permitted range of behavior while under other situations, college students, vigilantes, mobs, police, and religious enthusiasts find wider ranges possible. These facts make the application of a social criterion of affective maturity a very difficult matter.

Other problems connected with the selection of the criteria of mature behavior remain. A purely genetic or physiological criterion can seldom be adopted because there are few patterns of behavior which invariably are optimum physiologically. The physiological worth of a given bit of behavior depends to a great extent upon the social effects of that behavior, depending upon whether or not it leaves a person secure in his livelihood and status. Possibly this implies that society *must* be accepted as the final arbiter of maturity and that it is the part of wisdom for psychiatrists and educators always to lead children to ac-

cept the mores as offering the correct criteria of conduct. History certainly would not justify such a conclusion, however, for *successful rebels* are now our *heroes* and we also ascribe glory to some martyrs. Furthermore, it is doubtful whether progress adequate to maintain the social evolution necessary to adjustment can be secured in a society that trains its children simply to adjust to the *status quo*. The ethical criterion remains. But ethical codes are in part social phenomena and many persons do not admit that absolute ethical values exist. Almost we seem to have arrived at an impasse.

IMPLICATIONS FOR RESEARCH

Surely, one implication of this difficult situation is that criteria must be clearly stated for all "range-scales" or "sequence schedules" of maturity which may be proposed. It is urged that these criteria be thought through and written down *before* the actual experimental or observational work is begun, for the criteria are needed as much to give perspective to the research personnel as to the educators who must use their data. A second implication must be that affective maturity never will consist of a fixed and determinable series of behavior patterns, that maturity implies a considerable range of complex behavior varying from situation to situation for a given person and varying also from person to person in a given situation. In a sense, behavior must be regarded as normative over a range sufficiently wide to satisfy all three criteria with the recognition that in some situations genetic needs will carry the greatest weight, in others adjustment to the mores will be paramount, while in still others, ethical values should be dominant. This will imply, too, that affective maturity is completely unattainable for some persons who find themselves in situations where the disharmony between the requirements of the various criteria are too marked.

Inadequacy of Any Single "Scale" of Affective Maturity

It should be evident from the material presented up to this point that general scales of "emotional maturity" are not

desirable. The ramifications of affective factors in behavior are so extensive, pervasive, and particular that teachers and other school people should not be misled by comprehensive titles on "tests." We are not now able and shall not be able to measure accurately affective maturity as a whole. The most practical thing to do is to select certain aspects of this broad field, to define meticulously the criteria against which we validate our findings and then to work out statements of the range of behavior that is wholesome under a given set of conditions. Descriptions of the populations involved in the formulation of these "range-scales" and "sequence schedules" also is necessary, for these instruments will have a valuable use in studying ethnic and culture-level differences.

While all of the aspects of affective life mentioned earlier, and many others, deserve careful study and evaluation, certain areas stand out as particularly in need of attention. One or two of these are given special mention.

Evolution of Emotionally Mature Sexual Behavior

Genetic and social influences frequently are in conflict in their influence on the evolution of sexual behavior in adolescents and young adults. Recently a considerable shift in the sexual mores is supposed to have been occurring, but social and ethical justifications for the "freer" modes of behavior have not been granted generally; there remains a sharp conflict between the social, ethical, and genetic criteria of mature behavior. This is confusing alike to the young people who find themselves actively involved in emotional conflict and to the parents, teachers, and others who must counsel and assist these young people. There is real need for clear-cut statements as to what constitutes a normal evolution in erotic behavior from the physiological and genetic points of view. There is equal need for clear-cut statements as to what constitutes socially mature and ethically desirable control of this behavior at various stages toward final maturity. This would serve at least to define more clearly the issues at stake. Just now, many individuals, pre-

occupied exclusively with one or another of the criteria of maturity, suffer serious and almost irremediable personality disorders. They have achieved maturity according to one criterion by accepting concepts or experiences which render them unable to achieve maturity judged by another criterion. It appears that erotic experience can be either too limited or too extensive for wholesome maturing, but no armchair solution of the problem will suffice. We must know in more detail just what is happening to the adolescents and young adults of the country and what the effects of various experiences are. Much costly rebellion and much unnecessary self-condemnation might be avoided if persons close to young people really knew the normal range of erotic behavior which will bring ultimate maturity both of expression and control of the sexual emotion.

Aesthetic Maturity

Maturity of affective reaction to aesthetic experiences, whether expressional or appreciative, probably must be evaluated against cultural criteria. Yet the possibility of aesthetic absolutes must not be categorically denied in the light of the material presented in the preceding chapter. Both Munro and Meier, although they represent different points of view, are undertaking to apply scientific analysis to this problem, not for the purpose of standardizing aesthetic expression and enjoyment but to make possible a more swift and more accurate mastery of the contributory techniques that will free the human spirit for creativeness and for enjoyment.

The conscious use of aesthetic experience to maintain morale may be not only a means of social control and integration but also a mark of personal maturity. The use of aesthetic expression as a means of release, escape, or catharsis from unbearable tensions may be a mature means of avoiding less desirable emotional reactions. Socially, art in all its forms may act to clarify and integrate national and cultural patterns and to produce a mature unity of purpose and ideal within a population. All of these areas of social psychology are almost un-

touched and are greatly in need of attention. The implications for education to be derived from work in this field have the greatest practical importance for methods of character and civic training.

The way to maturity of aesthetic appreciation possibly lies through the widest possible aesthetic experience, under guidance if possible, but better under conditions of complete freedom than under regimentation. The latter acts quickly and effectively to stifle appreciation. The road to a rich creative imagination lies in this same direction of rich experience, as is shown by a very admirable study by Lowes.² Desiring to understand how Coleridge achieved such remarkable vividness and accuracy in his descriptions of tropical seas in *The Ancient Mariner*, Lowes studied the notebooks of Coleridge and then read everything that Coleridge had read. Coleridge had never been to sea, yet his descriptions are fascinatingly vivid and Lowes discovered the source of almost every item of imagery found in *The Ancient Mariner*. Among other sources, they were derived from accounts of scientific studies of micro-organisms, from accounts of travel in the Arctic and in the swamps of Louisiana. Tiny elements from a hundred sources were integrated into a most stirring and complete picture of the experiences of the becalmed mariner. Only genius can accomplish such an integration, but certainly the richness of appreciation of each of us depends upon the richness of association, intellectual and affective, which we have with the words, colors, forms, or sounds used by the artist to convey meaning to us. The obligation of the school is undoubtedly to increase our ability to appreciate the aesthetic productions of geniuses by enriching the associations of all through extensive and vivid experience.

On the other hand, it is probably impossible for the school to create and maintain conditions which will induce genuine artistic productions in all children. If for no other reason, the fact

² J. L. Lowes, *The Road to Xanadu* (Boston and New York: Houghton Mifflin, 1927).

that "art production starts with some sort of conflict which cannot be resolved by direct action in the so-called world of reality,"³ establishes a condition which cannot always be met. Of course, this situation does often arise in children and the facilities for artistic production should always be available to children who have a genuine desire to express something; still the school can hardly set out to create conflict for the sake of directing into aesthetic channels the dammed-up energy supplies thus established.

Professor Langfeld offers a word of caution about accepting catharsis, or relief from general tensions, as a certain outcome of art work. He points out that the relief afforded is but momentary and specific and not a general and continuing relief from all worry and tension. He concludes: "Although art offers us a means of adjustment toward fundamental problems of life and perplexing conditions of our environment, which we might not otherwise be able to obtain, it is very doubtful whether it often acts as a sedative."⁴

The general conclusion to be reached in view of the role of aesthetic factors in affective maturity is that aesthetics deserves a great deal more attention than it now receives in education. The theoretical formulations of aesthetics and the experimental study of the development of the capacities which underlie aesthetic expression and appreciation both have progressed to the point where experimental educational programs are justified which will extend greatly the aesthetic opportunities traditionally offered to children.

AFFECTIVE MATURITY AND VALUE CONCEPTS

--Characteristic of affectively mature persons are strong value concepts which show their presence through manifestations of loyalty. The material about attitudes presented in earlier

³ H. S. Langfeld, "The Role of Feelings and Emotions in Aesthetics," in *Feelings and Emotions; The Wittenberg Symposium* (Worcester, Mass.: Clark Univ. Press, 1928), p. 347.

⁴ *Ibid.*, p. 349.

chapters seems to justify such a statement, as does a perusal of the case records of psychiatrists and mental hygienists. The loyalties emerging may be to persons and to certain social groups such as the family, the church, the business concern, a political party, or the nation; or there may be manifested loyalties to certain ideals such as "the golden rule," the teachings of Jesus or Mohammed, "liberty, equality, and fraternity," "rugged individualism," or "Marxism." The value concepts underlying strong loyalties are basic in determining the "super-ego," the picture that the individual holds of what he wants to become and, incidentally, of what he wants the world to become. These values furnish the integrating fabric which holds life together and gives to it unity and significance, for they mediate the major behavior patterns. They determine what is worth striving for and what is worth risk to hold or maintain.

A word of caution must be introduced here, lest demagogues and selfish purveyors of dogmas and isms seize upon the above as the justification for propagandizing and regimenting children and young people. Blind loyalty, the unquestioning passive acceptance of dogmas in any realm produces the opposite of maturity, which is dependence. The active loyalty which marks maturity springs out of the individual himself; it emerges from a growing belief in the wholesomeness, the desirability, and the value of the institution or the concepts to which he becomes loyal. The mature person is not loyal because he is told he should be, or because he sees other people being loyal to the same things—he does not adopt his loyalties ready-made. Instead, his loyalties arise from convictions based upon the experiences he has had as he tries to meet life in its various aspects. Viewed from this angle, it can be seen that the active loyalties which mark maturity cannot be inculcated or taught directly.

While the psychologist can advise educators that value concepts are important objectives to be sought through school experiences, he cannot recommend specific values to be sought.

The psychologist can, however, estimate the effectiveness of the paramount values of his times by studying the incidence of suicide, divorce, mental breakdown and insanity, crime, drunkenness, and neurotic behavior of many sorts. Also he can evaluate the permanent or transitory nature of the common ruling values and the social effects of the historical events growing out of the behavior of masses of people activated by given value concepts. Ultimately, he might seek to define as mature values those which events show to result in social good—but a certain element of speculation will enter into his view of contemporary life. Only by plotting the evolution of values over a period of time and predicting the next stages by interpolation can maturity of value sense be ascribed to any contemporary individuals. Certainly, the mature values are not necessarily those held by the mass of people—such values are normative but rest upon such incomplete experience that they cannot be taken as the chief aims of life—to be sought by public school instruction, for example.

The contemporary picture with regard to values and manifest loyalties is none too bright. Economic security and economic power have an overprominent place whether due to bare subsistence incomes or to the pleasure which comes with the control of large enterprises. Nationalism and class loyalties are extremely strong in certain countries and among certain groups which associate their own self-interest closely with national or class ascendancy. The long-run social effects of the dominance of these value concepts and loyalties simply cannot be ignored. Economic power that produces devastating depressions, nationalism that produces war, and class loyalties that precipitate revolution by force, while they may have produced genetically mature individuals well integrated in the pursuit of their purposes for a time, can hardly be regarded as the fruit of affectively mature value concepts when measured against social and ethical criteria.

Educators must be especially interested in this problem. If they have any social conscience, they cannot remain inattentive

to the value and loyalty patterns brought to school or carried away from school by their pupils. Unless schools are to become purely agencies of outright indoctrination for the dominant groups in society, they must teach pupils the technique of progressively adapting value patterns and ideals in the light of increasing knowledge and insight. They must also help pupils discover valid sources of information and estimate bias.

Absence of Motivating Challenge

Anyone closely associated with young people during the last decade must have been impressed with another serious problem—the common *absence* of feelings of hope, purpose, and challenge in their lives. The frontier is gone; the factory is here. The importance of the small entrepreneur has diminished greatly; business is increasingly operated by huge corporations with interlocking directorates. The white collar field and the professions are overcrowded; the need is for abandoning marginal farm land and restricting crops rather than for clearing new ground and ploughing more acres. The skilled artisan and the ditch digger both are increasingly replaced by machines. “What *significant* place in life is there for me?” is a question forcing itself into the minds of the young people graduating from high schools, junior colleges, and colleges. Italy, Germany, Russia, and Japan have answered the question for their young people. School people in America are wondering what answer to give to their youth. The distressing number of juvenile delinquents and youthful criminals shows the answer which some young people have stumbled upon in the absence of adequate guidance. Yet, our society holds a myriad of problems challenging youth for solution. The problem of education is to give experiences to young people that will reveal possible significant roles for them.

It must not be inferred, however, that we know as much as we should know about the psychological processes by which value concepts are differentiated out of basic physiological needs. Careful analytical studies of individuals, carried on over

a period of years, are needed to trace the experiences that have conditioned the particular value and loyalty structures which lie at the center of each personality. The work of many psychiatrists dealing with delinquents, psychotics, and neurotics, and Lewin's experimental studies of "valence" constitute valuable leads as to methodology.

ROLE OF EDUCATION IN PRODUCING AFFECTIVE MATURITY

At the risk of being premature because of inadequate knowledge, the following formulation of the proper role of education in influencing the development of affective maturity is presented. That role seems to be:

- a. to identify in individual children those patterns of emotional behavior which do not fall within the accepted range and to undertake re-education;
- b. to provide all children with experiences that will stimulate the progressive development of patterns of emotional behavior recognized as mature in the light of the basic needs of the individual and in the light of the cultural pattern in which these needs must be met;
- c. to provide children with aesthetic experiences and training in aesthetic expression that will develop patterns useful to them for maintaining morale, for relieving tensions, for identifying themselves with a cultural group and, in general, for sensitizing them to beauty;
- d. to provide children with experiences that offer them the chance for the development of a "mature" value sense and of loyalties so genuinely associated with value for them as to be characterized accurately as affective loyalties;
- e. to provide children with enough opportunity for the *active practice* of behavior growing out of these value concepts to

establish in them a technique or habit of more or less continuously re-evaluating their loyalties in the light of experience.

The general aim of such a training is to produce individuals who are neither spineless drifters ("blind conformists") nor bigoted conservatives (thoughtless privileged) but who maintain their emotionalized loyalties in a matrix of intelligent evaluation of life and its experiences. Schools should produce persons who know when to adapt and when to purpose.

VI

BASIC PERSONALITY NEEDS AND CONDITIONS WHICH FRUSTRATE THEM

THOUSANDS OF SCHOOL CHILDREN are not meeting life successfully in the present, nor are they growing toward emotional maturity. Some of these children are showing asocial behavior, others antisocial behavior. Some have their scholastic effectiveness reduced far below their real intellectual power by mental conflict or emotional disorganization. All of them show a warping of attitudes that bodes ill for their own happiness and for society as they grow older. Many agencies are doing fine work with these children, despite the fact that methods of diagnosis and treatment have not been "scientifically" validated by statistical study or by controlled experimentation. These agencies have, in general, found that the causes of maladjustment are much more frequently functional than innate. They suggest that the earlier recognition of tension and of unwholesome conditions might lead to the avoidance of many difficulties, if adequate adjustments were sought promptly. This chapter is concerned with the role played by affective factors in the conditions which induce these undesirable manifestations and with discovering the obligation of education with regard to them.

It is entirely natural and yet regrettable that the literature of mental hygiene is devoted so thoroughly to a discussion of "problem" children in terms of the conditions that are unwholesome for personality development. Doubtless, this is because the personnel of clinics and juvenile courts must deal with so much pathology; their work is with individuals who have already shown or are fast approaching pathological manifestations of personality. It is different with the personnel employed in public schools. Like most parents, the school personnel is occupied with setting up conditions that are favorable to whole-

some development. They must ask: What are the conditions and experiences which children need in order to mature with adjusted wholesome personalities? What do children need in the way of things, activities, experiences, and relationships in order to attain functional effectiveness in our society and, at the same time, be reasonably happy? This report will undertake a tentative answer to these questions. Instead of presenting the negative picture of the unwholesome conditions which are at the root of much present maladjustment with the admonition to school people that they avoid these conditions, we shall undertake a more positive statement of what children need for the promotion of their mental health and for the development of normal adjusted personalities.

THE CONCEPT OF NEED

The structure and dynamic processes of the human organism imply the need for certain things, for certain conditions and for certain activities of the body if physical and mental health are to be maintained. The structure and processes of society imply certain knowledges, skills, and functional relationships as necessary to the individual if he is to be effective and adjusted. As he grows up, the experiences of life are sure to raise questions in the mind of each individual about his personal role and about the meaning of life; therefore, each one needs to arrive at a satisfactory mental organization or assimilation of his experiences. Thus, the structure of the organism, the processes of society, and the nature of a person's experiences contrive to give rise to a series of needs, of quasi-needs, and of operational concepts which must be met if wholesome personality development is to be achieved.

These needs are the basis of permanent adjustment problems which all of us face. They are more or less continuously with us. Our behavior is patterned in accordance with what experience has shown us to be the most satisfactory means of working them out, but, as conditions around us vary and change, we are continuously under the necessity of modifying our be-

havior. These needs become sources of unpleasant affect and even of serious personality maladjustments if they are not met adequately. Furthermore, our society is rich in circumstances which deny to individuals the fulfillment of one or several of these needs and quasi-needs for periods of varying length—this is what has happened to the thousands of maladjusted school children. There is a serious disharmony between the needs which they feel to be vital to themselves and the experiences of life as they meet them.

Fortunately, a few psychologists and psychiatrists have begun to think of personality in this functional way. Dr. Henry A. Murray of the Psychological Clinic at Harvard University has recently published an article¹ in which he sets forth a body of twenty-three facts which support the concept of need or drive. On the basis of case studies he has evolved a statement, as yet unpublished, of a long list of "psychogenic needs." His clinic is now working out techniques of measuring or evaluating the status of these needs in normal personalities, and the findings should be awaited with great interest by educators.

Likewise, a few sociologists have come to understand that frequently society itself is at fault when human beings misbehave. By denying to individuals the opportunity to satisfy basic human needs, society creates the psychic and emotional maladjustments which underlie some of the most critical problems that society then seeks to remedy by punishment or re-education. There is evidence here that society should seek consciously to reorganize itself in such a manner as to make available to each individual the opportunity to satisfy his basic personality needs.²

Method of Discovering Needs

The method by which the following statement of needs has been formulated is relatively simple. Numerous case histories

¹ H. A. Murray, "Facts Which Support the Concept of Need or Drive," *Journal of Psychology*, III (1937), 27-42.

² L. K. Frank, "Society As the Patient," *American Journal of Sociology*, XLII (Nov. 1936), 335-44.

have been read with this question in mind: "What is the child or young person seeking to bring about by each item of observed behavior?" The psychoanalytic literature is already written somewhat in these terms and was of great assistance, but a comparison of the needs arrived at by a general reading of case histories and those implied by the psychoanalytic literature suggests that the psychoanalysts have become somewhat preoccupied with the needs that are most often frustrated in our society, and therefore fail to give a fully balanced picture of what children need in order to develop in wholesome fashion. On the other hand, the psychoanalysts have made it abundantly plain that the behavior of a child or young person in a particular situation is often rooted in factors far deeper and more vital than the immediate stimuli of the situation imply. They have given, therefore, strong support to the concept of need.

Basic Personality Needs and Operational Concepts

The needs of developing children fall naturally into three categories representing three major aspects of the life of a person. These categories of need can be called: (1) physiological, when describing needs that spring primarily out of structure and dynamic biochemical equilibria; (2) social or status needs, when describing the relationships that it is essential to establish with other persons in our culture; and (3) ego or integrative needs, when describing needs for experience and for the organization and symbolization of experience through which the individual will discover his role in life and learn to play it in such an effective manner as to develop a sense of worthy selfhood. Each of these categories of need will be taken up in order, and the group of functional needs which subsumes under each category heading will be presented.

There is always the serious danger of misunderstandings when a schematic classification is presented; perhaps this danger is less for persons who thoughtfully doubt the schematic organization than for those who accept it readily. The latter

tend to make of a tentative classification scheme a system of definite knowledge into which observed facts must be fitted. A formal appeal is hereby made that the material to follow be regarded merely as an attempt to examine the objectives of behavior in functional terms, to understand what it is that is really "making the wheels go round" in human behavior. It is not an attempt to set up a rigid framework of concepts into which all behavior must be fitted. The categories which have been set up and the more specific needs within them will not be found to be mutually exclusive, independent, instinctive drives, each seeking satisfaction through a specific pattern of behavior. Behavior has a unity which far transcends this. What one does at a given moment may be an attempt to satisfy, at the same time, half a dozen different needs distributed through all three categories; but this behavior cannot be divided up into so and so many units of effort for each need. Therefore, it must be understood clearly that the various needs described do not operate independently of each other—a functional inter-relationship between them is evident everywhere. The satisfaction of one need may contribute or be prerequisite to the satisfaction of another. The satisfaction of one need may also place the individual in a situation that will give rise to another. A vital point to remember is that needs are basically related to culture and vary from culture to culture. Particularly in matters involving social relationships are cultural factors important in defining needs; indeed cultural forces even give rise to new needs from time to time.

PHYSIOLOGICAL NEEDS

Essential Materials and Conditions

The preservation of the essential physiological equilibria demands in the first place air, appropriate food and liquids, and such clothing and shelter as will permit the maintenance of the proper temperature. Deprivation of any of these for a considerable period will threaten death and offer the strongest motivation to adjustive behavior. Regular and adequate elimi-

nation of the waste products of the body is an equally basic need, and carelessness or improper habits in this matter are not infrequent causes of irritableness, physical ill health, and even of mental aberrations. The effects of poisons from spoiled food, from too much alcohol or tobacco, and from focal infections are also very damaging to the basic equilibria and imply the need to avoid these poisons and to get rid of them quickly if they do become lodged in the body.

Rhythm of Activity and Rest

Given the necessary materials and conditions for the maintenance of the basic equilibria of the organism, the dynamic nature of these equilibria and the structure of the body imply a rhythm of activity and rest. Without frequent activity in harmony with their natural functions, the various structures and capacities of the body will not develop and mature properly. Among growing children, both a great amount of muscular activity and a broad gamut of affectively vivid experience is indicated. The two together should give play to the full complement of physiological and affective capacities which children possess. By rounding out physiological cycles, they also serve to relieve emotional tensions which inevitably have developed.

That activity be followed by rest and that a proper balance and rhythm between the two be preserved are vital to emotional adjustment as well as to physical health. Failure to develop habits of sufficient sleep and of conscious relaxation may play a part in the development of a neurotic temperament, while good habits in these respects may help to offset the hazards of an innate tendency to emotional lability. Adequate rest seems fundamental to avoiding worry, to waking each morning with a fresh untroubled outlook on the new day. This need must be stressed for children and young people, because habituation plays an important role and because good rest and relaxation are hard to attain once the contrary habits of worrying and carrying tensions along from day to day and week to week have been acquired.

Sexual Activity

The need for sexual activity inheres in basic physiological dynamics. The secretions of the gonads, developed under the dominance of the pituitary, are thrown into the blood stream and take their places among the secretions of the other endocrine glands in determining the general body economy. The drive to activity engendered by these secretions is very powerful—so powerful as to insure the continuance of the race under the most difficult circumstances. Sexual activity offers to the mature person a rich immediate yield of pleasant emotion and also seems to relax other tensions. It is the basis of family life and has an important role in connection with the satisfaction of the need for affection, to be mentioned later. Its deeper symbolic or spiritual values are but indistinctly understood.

Because sexual activity is the essential basis of family life, society is greatly concerned about it. Society desires to insure its own continuance by promoting sexual activity under certain circumstances, but it seeks rigidly to define and control these circumstances. Therefore, numerous conventions and taboos are set up about sex and are enforced regardless of the tension resulting in individuals. The rigidity of these taboos and the insufficient training in the exercise of sexual activity make this need a very difficult problem for great numbers of people, both unmarried and married. Correspondingly, the frustration of this need is a fruitful source of maladjustment.

SOCIAL NEEDS

The social needs of the individual grow out of the fact that life must be lived in contact with other people. Only by establishing and maintaining satisfactory relationships with persons, organizations, and institutions can the individual obtain optimum conditions for continuing his physical life, for establishing and maintaining a family of his own, and for realizing the various potentialities of his own personality. Certain conditions loom so large in his task that they amount to basic needs for his developing personality.

Affection

A fundamental need is to live in a relationship of affection or love with some one or several other human beings. Only in such a manner can the individual have an unassailable feeling of his own value. The need appears in very young children and continues throughout life. It is by no means guaranteed to everyone. A student who questioned a large number of first-grade children as to the persons who really loved them reports one child who was greatly upset by the question but who finally was able to reply, "Only God!" Some psychiatrists term this need for affection a need for security and it is quite true that the absence of love in a child's life is marked by the strongest feelings of insecurity.

Belonging

Normal, wholesome personality development in the social world demands that the child expand the scope of his activities into successively wider social groupings. His functioning in these groupings must be of the effective sort which will give him the feeling of "belonging" in these groups. He must feel that he is important in these groupings, that he is well thought of, that he is valued. The social valuation that is the basis for this sense of belonging possibly arises from what the individual is, from the contributions which he makes to the various groupings. The achievement of maturity requires that the child accomplish the steady widening of this belonging from the family to play groups, to the school class, to clubs, and so on. Without this sense of increasing belonging the "security" of the individual is greatly menaced, and his valuation of himself suffers to the point of involving him in very serious and continuing unpleasant emotions. Resulting attempts to relieve this tension, to demonstrate personal importance, may involve the individual in all sorts of antisocial or regressive behavior entirely inimical to ordered personality development.

Likeness to Others

A significant measuring rod by which an individual living in

the company of others may evaluate himself is his likeness to others. The possession of characteristics which sharply differentiate a person from others, unless it be in a manner greatly applauded by society, is a handicap and a hazard. Even great gifts of a valued sort may distort and warp the personality if they interfere with the feeling of being one of the great human family like unto all others in appearance, capacity, and worth. Differences in behavior which have arisen normally from differences in temperament, intelligence, or experience may still give rise to feelings of guilt, or of set-apartness, which will make the individual shy, uneasy, and ineffective in his social behavior. All of us, then, seem to need to feel that in essential matters we are like other human beings—and almost any noticeable difference may seem an essential one to an individual if it receives unfavorable attention from others. This is particularly true in childhood and adolescence when the individual is striving to expand his belonging into large, socially significant circles.

EGO AND INTEGRATIVE NEEDS

A person cannot be adjusted even reasonably well unless he believes in himself, unless he feels that he has attained a worthy and effective selfhood. The coordination and unification of all desires and operational concepts until they are fused into a unity which gives rise to consistent behavior is, then, an ultimate need of the growing personality. Because life is dynamic, because personality development requires activity in ever widening social spheres and involves a steadily increasing number of materials, machines, and forces, the individual cannot fail to evaluate himself in terms of his effectiveness in dealing with these social and material situations. Failure to behave effectively constitutes a frustration of the attitudes or operational concepts which he has developed; whereas success gives rise to pleasant affect and represents the achievement of a new step toward maturity, the realization of an increased command over the affairs of life. In the same way, disharmony within the personality itself, marked by mental conflicts and inconsistent

desires, gives rise to devastating emotions and the disruption of behavior patterns; whereas integration results in the pleasant affect accompanying a new realization of the richness and completeness of life. This basic necessity for a sense of worthy selfhood based upon the maturing of an integrated personality gives rise to a series of functional needs which have the most far reaching implications for education and, indeed, for the evolution of all social institutions and processes.

Contact with Reality

The only basis that an individual has for developing attitudes and formulating behavior patterns is experience. Then, if experience be only partial, restricted, and biased, the resulting behavior patterns must necessarily be inadequate to meet all aspects of life. The implication is that children need to be supplied with experiences as rich and varied as their environments can afford. These experiences must bring them into contact with the realities of matter and energy and with the interrelationships involved therein. They must reveal to children the real nature of the social forces, social institutions, and social processes now in operation in our own and other cultures. They must assure the contact of children with authority in its different forms. In terms of affect, the implication is that children should have a chance to experience success and disappointment, antagonisms and cooperation, pain and exhilarating pleasure, hard work, the relationship between effort and return, adulation, accidents. In short, children need to run the gamut of experience, excepting only that which produces physical deterioration or disorganizing emotion. Children need contact with reality so that they may grow in knowledge, understanding, and wisdom.

Harmony with Reality

Given a rich background of experience, the individual needs to achieve the mental organization which will result in behavior in harmony with actualities.

Each individual finds himself always in the presence of forces beyond his control, forces activated and directed from sources beyond his arena. These forces are not continuously active, and they are variable in their pressure but the individual not only is cognizant of them, but also his personality is moulded to their existence. Authority, then, names the existence of forces beyond the individual's control.³

Authority beyond our control gives us our physical structure with its peculiarities, its weaknesses, and its incessant demands for function. Authority beyond our control gives us our parents and relatives and takes them away in death. Authority beyond our control has established the social order in which we find ourselves, with its conventions, its economic base, its institutions, and its laws. Extra-human authority orders the sun in its course, sets the stars in their places, and brings the changing seasons in their time. It has created a world of order and beauty; it also brings natural disasters, infections, pests, droughts, and a thousand uncertainties which set human plans at naught. These are all realities that have to be reckoned with, but they do not foredoom us to defeat if we harmonize our behavior with them. As the child progresses through school, he finds the reality of ordained relationships between the various forms of matter and the different manifestations of energy. He can use these things for his own ends, in so far as he learns the laws through which authority operates and makes his own behavior harmonize with these laws.

Over and over again, human beings have been frustrated and confounded by realities. Then compensatory behavior appears; it ranges from that of the medicine man, witch doctor, and voodoo worshipper to that of our most eminent scientists, philosophers, religious teachers, and artists. The latter are assisting tremendously in clarifying human insight into reality so that behavior may be harmonized satisfactorily with the laws under which it operates. So it is that each individual faces the problem of harmonizing his own life with reality, using

³ James S. Plant, unpublished manuscript.

whatever help he can get from science, philosophy, religion, and aesthetics. He cannot dodge the need for harmonizing his behavior with reality; and the penalties for failure to achieve this harmony may be most severe.

Progressive Symbolization

The harmony of behavior with reality comes best through progressive symbolization. As infancy emerges into childhood and childhood advances toward adolescence, experience is added to experience and behavior pattern to behavior pattern. Granting the complete specificity of the conditioning process and remembering the discreteness of many of the experiences through which conditioning comes, it can be seen that there is a great danger of developing inharmonious behavior patterns and warped value concepts. But, happily, the human mind is endowed with considerable power to organize experience, to establish logical arrangements of ideas, and to arrive at general concepts. The development of language, both verbal and postural, affords a basis for mentally manipulating and for expressing these generalizations—we come to know what a dog is, what energy is, what anger and honesty are. We can state the steps in the “scientific method” of investigating a problem apart from the consideration of a specific problem; we come to worship at the shrines of “beauty” and “truth.”

To arrive at any such generalizations requires extensive experiences, the organization of these experiences, and the learning of the conventional symbols for expressing these generalizations. Children need help in this process. This help involves the arranging of circumstances so that they may have the experiences leading to generalization, the encouraging of children consciously to attempt generalization, the checking of these generalizations against further experience and against the generalizations of others, and the insisting by adults that children state their generalizations in accurate terms. Numerous dangers lurk in generalizations which do not conform to reality. They may become the basis for warped value concepts.

As pointed out in an earlier chapter, abstract value concepts represent most advanced forms of generalization and play a stellar role in motivating and directing human behavior. Consider for a moment the part which the possession of money plays in the life of adults. We recognize immediately that the possession of money provides the individual with the means of purchasing food, clothing, shelter, transportation, the opportunity for an education, and for entering a socially useful enterprise or occupation. Because money is thus the basis for a large measure of security in our social order, it often becomes the symbol of success, the symbol of status, or of the maturation of the traits of personality that are essential in our society. There is a danger here that the possession of money may become the major objective of the behavior of an individual, becoming for him the symbol of all that is good and desirable in life. Too late, ethical, cultural, and social values quite beyond those procurable by money may be revealed to him as major desiderata in living. Symbolization, then, needs to be progressive, evolutionary, and continuous during much of life so that personality development shall not be stagnated at ethically or socially immature levels. Progressive symbolization is the means by which the conscious core of meaning in life is built up and this conscious core of meaning is the center about which the personality is integrated.

Increasing Self-direction

Infants are completely dependent on older persons for the necessities of life and for the direction of their behavior. As children grow older, they sometimes seek to continue this dependence, searching for parent substitutes in the various social groupings in which they find themselves; a playmate, a teacher, or an older friend may give the behavior cues. Indeed, this pattern of dependency often persists into adult life, and we find a man's wife acting as a substitute for his mother or his paternalistic employer substituting for his father in helping him to make most of his decisions. This is by no means wholesome.

Psychiatrists are agreed that children as they grow older gradually should be given the privilege and responsibility for initiating and regulating their own behavior. This should go along with the development of value concepts, standards, and purposes which serve as the line of reference by which they judge their own behavior; but the development of these value concepts waits upon practice in self-direction. In no other way can they be procured. If children are given progressively wider responsibilities, it is generally agreed that they are ready to make a great many of their own decisions before adolescence ends. The period of psychological weaning is a long one and the process one of gradually increasing self-direction. The penalty for failing to provide for this need is permanent dependence and immaturity, for without well-developed criteria for judgments, inconsistency of conduct and worry are inevitable.

A Fair Balance between Success and Failure

The only way of being certain that one is normal and valued by those around him is to note that one has been effective in meeting situations. Life confronts us steadily with new challenges, with situations that test heretofore untried abilities, with situations of greater and greater complexity. Vigorous, aggressive assurance in attacking these new situations can emerge only from a feeling of possessing the capacity to deal successfully with them. A child who has found continuous difficulty in learning the things which he saw other children learn in school, a child who has not been able to earn the feeling of belonging in various social groupings, a child who has been confused over and over again by the complexity of the material and energy factors met in earlier experience can hardly be expected to mobilize his knowledge and integrate his energy output into effective behavior patterns. Children need to feel adequate in capacity and skill to meet a fair proportion of the situations they are called upon to face. They need to obtain a fair balance between success and failure in the realization of their hopes and desires. Our society lauds the "go-getter," the forceful, assured

personality; but while these characteristics are in part the result of innate factors of temperament and intelligence, experience has a large part in developing them. Unfortunately, experience overweighted with failure "proves" to many children that they are "no good"—even though they actually possess adequate intelligence and energy. Either too much success or too much failure may warp a person's judgment of his proper role in life.

Attaining Selfhood or Individuality

As experience accumulates and progressive symbolization supplies a core of meaning to life, the child gradually comes to recognize himself as a unique personality with distinctive characteristics. The gaining of knowledge, the development of skill in manipulating available material and energy for his own purposes, the achievement of wider and wider social belongings, the winning of greater freedom to direct his own behavior, and the knowledge of his personal successes and failures—these experiences make it inevitable that a person will evaluate himself for what he is, will sense his own personal worth or the lack of it.

Ideally, each individual should feel that he is the latest link in the unending chain of a developing race or nation, thus "finding himself" in both a personal and a social sense. "The task of commingling personal goals with the goals of the group in such a way that they are not lost is the true artistry of life."⁴ In other words, self-interest should be so inextricably inter-associated with the welfare of the group that socially useful conduct inevitably becomes the road to personal satisfaction and self-expression. Then goals become clearer, life seems to have meaning, and behavior under varying circumstances does not arouse internal conflicts.

Psychiatrists have given various names and definitions to this "selfhood" which individuals need to attain. Some have called it the "super-ego," others have termed it maintenance

⁴ James S. Plant, unpublished manuscript.

of status. At all events, the phenomenon is genuine and, as described here, marks the integration of the individual. The tendency to compartmentalize our lives and to live different aspects of life under different standards is a real danger. It may introduce cleavages into the personality that will be the basis for much conflict and failure.

Integration is common in young children. It is a pity that schools do not see in the *continuous* maintenance of integration by their pupils a criterion for the validation of both curricula and methods. It is a shame to let children progress through a whole series of experiences that arouse conflicts, to permit conditions to continue which frustrate their needs, and then, when the inevitable warping of personality has occurred, to undertake re-education. Instead, we should set the stage for experiences that will meet the personality needs of our children and thus avoid so much maladjustment.

PERMEABILITY OF PERSONALITY

All psychiatrists and school people recognize that many experiences seem to brush against individual children, and adults as well, without making any impression upon them. This is so noticeable as to lead some psychiatrists to speak of a membrane which surrounds the personality and is permeable only to certain items of experience. This is an excellent figure and has no mystical or metaphysical basis. It is merely, to change the figure, that personalities are hungry for certain experience and have no appetite for other experiences. The personality needs just outlined give the key to this "hunger" phenomenon. When the individual needs to establish his belonging in a certain group, needs sex experiences, needs to achieve enough success to bolster up a failure, or is trying desperately to organize his experience into a unit of meaning, then he will pay attention to and react to only those situations which appear related to one or several of these needs. He will ignore or perform in a very perfunctory manner any other behavior required by the various circumstances which surround him. Needs are

the basis of preoccupation, of much behavior which seems to have little relationship to the situation at hand, and of much behavior which runs counter to the aims of the social group at the moment. An understanding of this is particularly important to an understanding of the dynamics behind a great many episodes that upset school routines. Children are sure to protest or to attempt compensatory behavior when a classroom situation frustrates or fails to meet a basic personality need. In contrast, they learn with the greatest facility and are most cooperative when the situation offers to meet one of these needs.

IMPLICATIONS FOR EDUCATION

Formal education has never really come to grips with the task of meeting the needs of developing personalities. More or less on the basis of academic traditions, school curricula have been organized to provide children with the opportunity for learning "essential" tool subjects and the facts included in certain "mental disciplines." The methods of presenting the material to be learned usually have been based on the logic of the subject rather than on the logic of childhood experience. "Provision for individual differences" too often has meant varying the quantity of material learned without changing the nature of the content very markedly. Measurement usually has assayed the learning ability of the child (intelligence) and later tested the quantity he has learned. It is not implied that any of these things is undesirable in itself, but it is certain that doing all of them well will never accomplish the most fundamental aims of child training—the maturing of character and personality. These last have been left largely to the home and the church, and to the accidents of social experience. A democratic society can never be content with its schools while this is true.

For the school to meet the implied challenge is for it to reorganize very thoroughly and on a much more "functional" basis. School people will have to recognize the need of children for more activity and for more rest. They must encourage the

development of friendship between pupils and between pupils and teachers. Conditions of belonging will have to be understood and provision definitely made for opportunities for socially useful behavior that will give children a chance to know that they belong. If the gamut of affective experience is to be run, the curriculum must offer more success to dull and underprivileged children and the challenge of tremendously difficult situations to very bright ones. Particularly must the piecemeal, fragmentary mode of learning be replaced by a system of training that will stimulate the organization of knowledge, the appearance and checking of generalizations and the emergence of value concepts. "Integration" is now a great educational shibboleth—a word which draws a laugh from "practical" people and a sneer from cynics. Yet psychiatrists know that it cannot be disregarded as an objective of education. The obligation rests on educators, then, to experiment until they find out what sequences of experience and what functional activity situations are effective in helping children to achieve a well-knit personality in this complex civilization of ours. The issue is very clearly joined and will probably give rise to tremendous controversies once really significant experimentation is undertaken.

UNWHOLESOME CONDITIONS

There is no doubt about the fact that children are frequently very troublesome at home, at school, or in the community. At times they seem like perverse imps bent upon upsetting routines, destroying property, and disorganizing adult life generally. Too often such circumstances are treated as though some moral issue were paramount. Children are blamed, scolded, punished, or humiliated with the idea of preventing repetitions of the unwanted behavior. Too often this seems to exaggerate the trouble. If a particular piece of behavior is not repeated, some other equally disturbing symptom appears. The truth of the matter only occasionally lies in any really bad intention on the part of the child. More often he is merely protesting or compensating for the frustration of one of his genuine personal-

ity needs. Visiting teachers, "habit" clinics, and the psychiatric clinics connected with various schools, courts, and social agencies are rendering splendid service in pointing out this fact and not a few school people are sensitive to it.

There are so many conditions which may occur to upset the orderly development of a child that the wonder is that children give so little cause for worry. A few of these conditions will be mentioned in the remainder of this chapter. Many more will be included in the next, where the influence of contemporary social institutions and processes is to be considered. They are termed unwholesome conditions because so often they give rise to behavior on the part of the child concerned which cannot be accepted by his family, school, or associates as reasonable behavior. On the other hand, for the sake of his own self-respect, the child is not able to avoid some sort of protest or some sort of attempt to justify himself in his own eyes, no matter what the social effect. The conditions described by no means exhaust the list of situations which almost inevitably provoke unacceptable behavior. Any situation which does violence to the personality needs with which the child is preoccupied at the time can evoke unwholesome behavior.

The Rejected Child

Occasionally, a child is unwanted by his parents, or is "rejected" by them because of his sex, because of the care he requires, or for some other reason. This psychic rejection robs the child of the affection which he craves and prevents him from attaining the needed sense of belonging in the family group. The birth or adoption of another child into the family also may lead temporarily to the neglect of one child in favor of the newcomer, and, although this neglect is quite unconscious on the part of the parents, disturb his sense of being loved and valued. It is also serious for a child to be rejected by his playmates or classmates at school because of personal peculiarities, social or racial differences, or by his teacher for the same reasons. Quarreling, shyness, jealousy, and all sorts of bizarre attempts to

gain attention are the results. Fantastic lying, extensive day-dreaming and erotic preoccupations are other compensations occasionally found. Social rejection is particularly potent in reducing a child's educational accomplishment below that expected from one of his capacity.

Physical Peculiarities

The child who is very tall or very short, who is very fat or has marked stigmata such as crossed eyes, birthmarks, scars, many skin blemishes or markedly irregular features may be tortured every day in the presence of his more fortunate mates. It is most difficult to feel that one is like other people when one can see that he is marked as different. The merciless teasing of playmates, the crude attempts at sympathy by adults, and obvious attempts at reducing the conspicuous feature by parents and teachers only increase the sharp discomfiture. It is not to be wondered at that children with stigmata often become broken in spirit in the face of other failures or that they attempt compensatory behavior of quite unsocial and revengeful types under such circumstances. They have a right to compensation of some sort. Quite a few of the most outstanding figures in public life have possessed some grotesque characteristics and are said by psychiatrists to have accomplished their outstanding successes as compensations for these stigmata. But it is apparent that this is possible only when the individual has unusual intelligence coupled with unusual emotional stability. This is scarcely to be expected in the majority of children who are more or less disfigured. Less spectacular achievement based upon a solid knowledge of personal value arrived at through love, and the opportunity for socially useful activity must be aimed at for them.

It must be remembered, too, that peculiarities in speech, dress, or customs learned from foreign parents or differences in religion, race, or parental occupation sometimes have the same social effects as genuine stigmata.

Mental Deficiency and Organ Inferiority

Mental deficiency or serious organic inferiority foredooms an individual to many embarrassing failures. Many things that he sees other children learning and doing he simply cannot learn or do. The behavior limitation set by poor capacity is a serious handicap in itself. The feelings of confusion, failure, frustration, and ineffectiveness resulting from the scorn of others who see one's failures adds another disturbing factor. Such situations can arise in the classroom, on the playground, in social situations involving the opposite sex, or in the home. "He's just dumb!" or "You've got to expect that from Charlie!" adds the final touches of humiliation. While tantrums, withdrawal, fighting, stealing, or other compensatory behavior are very poor social remedies for the feeling of failure and exclusion, they often serve to recover for the individual a sense of his own importance.

Dull children sometimes become the dupes of brighter ones with organic inferiority and take all the chances as they jointly make their protest or vent their spleen on the school or on society in general. Mental deficiency and organic inferiority are difficult handicaps to overcome because the handicaps are themselves a part of reality and must eventually be accepted by the individual. Somehow he must be brought to feel that socially useful work within the range of his capacities is truly significant despite the fact that it is not spectacular and does not draw the plaudits of the public. Opportunity for genuinely successful accomplishment and the judicious use of praise when it has been earned are effective methods of assisting handicapped children in the classroom.

Disjunction of Ambition and Ability

All children, even though they have no serious disabilities have, nevertheless, some limits of ability set by natural endowment and by social heredity. By definition, half the population is below average. One's desires and ambitions easily may outrun one's ability, then. Unrealizable ambitions of a most persisting

and vivid sort may be engendered in children by an experience at the movies, by reading a story, by a careless word from a teacher, or in response to the urging of a parent. This disjunction of ambition and ability is observed all too often among adolescents, even among college students. It is particularly difficult when it occurs among children of the upper middle class where parents are striving for social status. It is hard enough for a young person to admit to himself that there are things he simply cannot learn; to be forced into obvious failure before parents who have so often expressed their ambitions for him is almost too much to stand. Rationalizations about the quality of teaching or the unfairness of an instructor, changes from school to school, and deliberate neglect of study and responsibilities are often tried before facing the situation squarely. Emotional scenes at home and a deadening sense of inferiority which gnaws away steadily are affective consequences. The emotional tensions are frequently very severe, and the only solution is a modification of goals in life under the adroit supervision of a parent, a teacher, or a psychiatrist who understands.

Tempo

Children vary in their rate of maturing. Some very small and very bright children mature so rapidly intellectually that they find themselves surrounded in school by much older and physically more mature children. These children find it difficult to participate in athletics and in social situations with their classmates. Much embarrassment and discomfiture result. Other children are slow to mature intellectually, fall behind in their work, and ultimately find themselves among younger children whom they can overpower physically but who do not have their social interests. Still other children are made conspicuous by their slowness or rapidity of physical maturity while advancing intellectually at a normal pace. All of these conditions create emotional tensions, interfere with the normal sequences of social belonging, and mark the individual as un-

desirably different at the moment. Variations in experience which hold an individual back from the sophistication achieved by his classmates or from the intellectual, cultural, or social accomplishments of a sibling may have the same effects. All such variations in the tempo of maturing need sympathetic understanding from teachers and parents. They affect strongly the "permeability" of the personality, the preoccupations of the individual. Evidences of inferiority feelings or of undesirable attempts at compensation are frequently seen.

Family Rivalry

Families are closely knit and the members live in continuous proximity with each other. Each one is thoroughly aware of all the little idiosyncracies and weaknesses in the others. At the same time there is a vigorous struggle among them for a position of leadership or dominance. There is striving to win the greatest love from a parent or to achieve the position of being the most needed in the life of the group. This struggle generates great emotional strains, the more because convention taboos active jealousy and family schism. It is literally true that many children cause cleavages between their parents in order to make themselves important, that many boys hate their brothers, and that many girls are strongly jealous of their sisters. These tensions affect school work in various ways. If an older child has distinguished himself intellectually, his brother may scorn study in favor of athletic prowess. If father always liked science and arithmetic which mother abhors, the daughter may devote her energies unflinchingly to chemistry and mathematics. A boy eager to establish himself with his mother may jeopardize his social position with his classmates to distinguish himself in the social graces and smooth language which his father hates, but his mother admires. Warped personalities, the habit of hypocrisy and double dealing, and the smouldering of jealousy are often enough the unwholesome outcomes. The notion that one must compete, must beat or be beaten may become a lifetime conception arising from these rivalries.

Overprotection

Some children are seriously overprotected, coddled, and spoiled by parents who use the children primarily as vehicles for the release of their own emotional tensions. Such children are robbed of their experience of reality. They get a very distorted notion of life and of the world. Their experiences are so limited as to prevent them from understanding social, economic, or even physical realities about them. Naturally, they are terrifically surprised and thwarted when they do make contact with the world as it is. The result may be a socially unbearable patterning of emotional behavior including tantrums, selfishness, fighting, or bossiness. A different temperament may show moods of whining, sulking, or withdrawing; another may plead illnesses of all sorts; vomiting and bedwetting are other modes of attempting to dominate the situation. The social road of the spoiled, over-protected child at school is a difficult one; and most frequently, it is the parents rather than the child who need treatment.

Sex Taboos

The emotion betrayed by adults in connection with minor episodes associated with sex endows this general area of experience with marked affective value very early in the lives of most children. This may result in making sex a very important element in a child's life, it may begin a preoccupation that will be surrounded by great emotional tension. This preoccupation may be intensified by the accidental discovery of erogenous zones, by the talk of older children, by the morbid modesty and prudishness of parents, by deprivation of outlet after genital maturity is reached, or by advanced erotic stimulation at "petting parties" where alcohol flows freely. The distortion of affective values which may ensue is quite unfortunate, for sex may become the chief channel to pleasant affect, to release from tension. Growing out of such a preoccupation is the danger of social censure with consequent worry. Mental conflict occasioned by the hiatus between behavior and accepted stand-

ards of conduct constitutes another hazard; and one of the most serious consequences is the neglect to develop appreciation and expressional capacity for the various forms of aesthetics and of socially useful action. While there may be some doubt about the possibility of completely sublimating the sexual drive once a full experience has become habitual, there is surely a great possibility of using the tensions developed by physiological maturing in adolescents to intensify and add meaning to many aesthetic, social, and ethical experiences. There is a vague uneasiness, a conscious desire to experience an unknown something, a mystical quality to the erotic urges of adolescents, which finds expression through music, poetry, dancing, the drama, and possibly the graphic arts. It is unfortunate for this affect to find its expression limited to overt eroticism.

Psychic Contagion

At home or in the classroom a child may be in daily contact with a person who is a serious source of undesirable affective learning. Such persons unconsciously may teach a child the habits of worrying over trivialities, of being afraid of numerous things, of expecting to be ill, of being suspicious or antagonistic toward others, of being jealous, envious, quarrelsome, superstitious and so on. Such sources of psychic contagion, of unfortunate mental habits may make the adjustment problem of a child difficult not alone because of the tensions aroused in him, but because these habits render the individual much less attractive socially. If the habits suggested become too firmly enthroned in the personality, a serious menace to the physical health of the child may result.

Diseases and Infections

Specific diseases and all sorts of focal infections so disturb the body economy by their toxic pollution of the blood stream that the victim becomes especially liable to emotional upsets. Tantrums, fears, negativistic behavior, loss of hope, and restlessness are very common phenomena. Excessive fatigue, eye strain, or overstimulation can have the same effects by increas-

ing the toxicity of the blood. The affective reactions aroused may disturb the body economy still further and lengthen the period required for recovery—a vicious circle is involved. School people need to be especially alert about conditions of this sort among children who are just recovering from illness or who have foci of infection which they must fight. The proper alternation of work and rest is very important. Emotional outbursts will be better understood, too, if the teacher is conscious of the intimate relationship between disturbances of the normal biochemical processes and affective upsets.

THE OBLIGATION OF EDUCATION

It has already been suggested that the needs manifested by growing personalities imply a considerable modification of school curricula and of educational methodologies. But many personality disorders and much unhappiness are occasioned by personal or social factors which cannot be changed by the school authorities. We may expect, then, that a more or less fixed proportion of public school pupils will suffer from emotional conflicts and other functional disorders; therefore, the question of the obligation of public education to these emotional deviates must be raised. Is it discipline, re-education, segregation, or to be let alone that they need?

Certain practical considerations have an important bearing upon any policies that may be suggested:

Recognition and Diagnosis

The first step toward helping maladjusted children is the recognition of genuine maladjustment and the diagnosis of its causes. The problem case is acutely apparent whose emotions lead him to aggressiveness and rebellion. The problem child is much less apparent whose behavior is characterized by withdrawal and self-condemnation.⁵ Also, as numerous case studies have shown us, a given behavior pattern repeated in a number

⁵ See E. K. Wickman, *Children's Behavior and Teachers' Attitudes* (New York: Commonwealth Fund, 1928).

of children does not imply identical basic causes or initiating conditions in them. The dynamics of a particular piece of behavior are peculiarly individual and require individual study using the most revealing case study techniques. Therefore, we must recognize that some of the most significant work of the schools is to be based upon a diagnosis as difficult and individual as the work of a physician dealing with obscure physical maladies. It is possible that mass methods may be devised for selecting the individuals needing special study, but remedial re-education apparently must be an individual undertaking. It is bound to be expensive, but that must be faced.

Techniques of Re-education

The second question to be raised is whether we know enough about the processes involved in personality development to treat maladjusted children with a fair promise of success. In certain areas we seem to be on solid ground. For example, it seems entirely feasible to remove conditioned fears by the simple process of reconditioning. Indeed, in some cases a spread occurs whereby the removal of one fear by reconditioning has led to the elimination of a number of other fears. But in case a child's fears are the expression of a deeper insecurity, the elimination of one fear only results in the appearance of other more puzzling fear phenomena. Some psychiatrists believe that the only answer to such a situation is a change of the child's own environment, eliminating the basic insecurity—a matter often outside the province of public education. Others believe that a reorientation of the value concepts of the child will suffice, that a new orientation toward life will make the insecurity less important to him. If this be true, the schools might be of great help by giving the child opportunities for genuine accomplishment and for genuine recognition.

In general, it must be admitted that school people know much less than they should about the value of various educative experiences in relieving emotional tensions and promoting the integration of personality. In particular, the use of aesthetic

outlets to reduce strain and to give new value insights needs extensive experimental study. The role of socially-useful activities by children in the formation of their characters is equally in need of experimental assay. Both of these fields offer great promise of yield, if the experimentation be based on the co-operation of psychiatric and educational workers.

Ineffectiveness of Contemporary Educational Methodology

The third practical question to be raised is whether current educational methods are appropriate for use in re-educating maladjusted children. It has just been noted that experimental methods and materials so promising as to justify extensive experimental try-out can be suggested. But some of these experiments may run counter to traditional educational practices, and there is a real question of the adaptability of the public schools as long as their present organization is maintained. We know conclusively that academic standards and subject-matter objectives are insisted upon frequently, even though they do real damage to some children. We know, too, that often school routines are adhered to in such ritualistic fashion as to deny children the opportunities for experience or self-expression that would establish their faith in themselves or afford them the insights into life and social processes which they sorely need. The issue must be made clear. Is it more important that children develop adjusted, integrated personalities or that they fulfill some other traditional academic objectives?

Need for Experimental Schools

Many professional educators justifiably are afraid to undertake significant experimentation because of the antagonism of ignorant parents or of local school-board members of limited perspective who are more interested in politics than in child welfare. The size of the administrative unit in public education, the insecurity of tenure of school administrators, and the political aspects of school financing are other significant elements in this situation. Nor is the broad education of public opinion

very feasible except by the process of demonstrating the superiority of new arrangements and new methodologies. For this reason, it is greatly to be hoped that some agencies with adequate financial backing will undertake to establish, and maintain for a period, experimental centers in various communities in different parts of the country, in which curricular revisions and new methodologies designed to meet the personality needs of children can be developed. Of course, communities must be chosen which will guarantee freedom from interference and the necessary cooperation by public officials.

CONCLUSION

Best contemporary thought seems to be forsaking the idea that "problem" behavior is usually the expression of bad heredity and mental deficiency. Instead, it accounts for maladjustment in terms of excessive deprivation, frustration, or insecurity which denies the child opportunity to fulfill the basic needs of his developing personality. It does not tend to classify behavior disorders into genetic types but seeks to understand in each case the disharmony or imbalance between the dynamics of the individual and the limiting conditions of his environment. It believes in the possibility of genuine re-education, to be accomplished by reconditioning, by adjusting the environment, by enriching and expanding the child's experience, by aiding the individual in the realization of worthy behavior goals, and by stimulating him to evolve new value concepts.

VII

AFFECTIVE BEHAVIOR AND CONTEMPORARY SOCIAL INSTITUTIONS AND PROCESSES

SOCIAL FORCES and processes are of tremendous importance in shaping the affective experiences and behavior of all of us. The extent to which each one is able to procure and maintain optimum conditions for himself and his family is intimately related to social conditions and to social institutions; therefore, the crises which give rise to emotions and the experiences which shape our attitudes are most often social. Furthermore, the behavior of others, which must be understood and influenced if social adjustment and social progress are to be secured, is also shaped by socially conditioned attitudes and affective experiences. While it is entirely true that the American scene is marked by higher standards of living than obtain elsewhere throughout the world, and that the American citizen does not suffer the restriction of liberty of action all too common in other countries, nevertheless, the social, economic, and political structure here is far from perfect, as will be seen from the descriptions of social circumstances giving rise to personality maladjustments. On the positive side, the United States has tremendous resources, both in materials and population, which can be mobilized to meet human needs. It has most effective methods of publicizing issues in the press and over the radio. Most important, it has developed wonderful facilities for public education. It remains to mold these facilities into effective agencies for advancing the public good.

SOCIAL FUNCTIONS OF EDUCATION

The functions and obligations of education in this area are recognized generally. The schools must produce common attitudes in a sufficiently large proportion of the population to insure social stability and progress. To accomplish this, educa-

tion must convince people of the extent to which their own self-interest is interwoven with the social good. It must re-educate those whose experiences have engendered selfish, asocial attitudes, or goals incompatible with general welfare. It must train children to avoid behavior which will distress other people or jeopardize the safety and well-being of others. Also, schools must help children to understand the nature of social conflicts, to recognize the rights of others in the struggle for security, to tolerate reasonable social experimentation aimed at ameliorating suffering and insecurity, and to accept personal responsibilities and a share in the burden of caring for the unfortunate and underprivileged. These seem to be the essential elements of educational policy necessary to social integration.

Schools also have a differential function varying from individual to individual. They must seek the personal adjustment of children who are thwarted or insecure under immediate conditions. They must help some to develop fortitude to endure that which simply cannot be changed. They must guide individual adolescents into socially useful forms of self-realization and assist them in the discovery of means for rich and satisfying experience. As indicated in the last chapter, schools must be reorganized to avoid being, themselves, the cause of frustration, or loss of status, of unrealizable ambitions, of deep resentment against social authority, of repeated humiliation. To accomplish their differential aims, the schools often must stand as a buffer between the child and some social processes. They must be of definite assistance to children who are misunderstood, exploited, incompetent, or underprivileged. This is no easy task. The social order itself is greatly confused and the future is quite obscure. Educators cannot pretend to be seers; but they are duty bound to avail themselves of every positive resource available in the training of the children and youth of the country.

There is not space in this report to mention and praise all of the worthy and effective extra-scholastic enterprises that have been launched and maintained for the welfare of youth. Practically every community in the country has interested groups

providing recreational facilities, special care for the handicapped, or opportunities for character training. It is to be hoped that these groups will not slacken in their earnest and valuable efforts. They are doing much to foster wholesome attitudes and to open up opportunities to young people. Unhappily this report, since it is concerned particularly with emotional and other aspects of affective experience, must pay particular attention to the causes of maladjustment which persist in our society. This, it must do to clarify the task which public education faces, and to develop suggestions for experimental attempts at improving the work of the schools in the face of these difficulties. It does not pretend to give a complete picture of contemporary society.

REVOLUTIONARY EFFECT OF SCIENCE UPON LIFE

The past century has been marked by a most amazing increase in scientific knowledge of all sorts, and this knowledge has not remained cloistered in the minds of academicians. The advance of scientific knowledge has been accompanied steadily by its application through invention and through the reorganization of mining, industrial, and agricultural processes. The number of patents for new inventions issued yearly since 1850 has increased according to geometric rather than arithmetical progression.¹ These inventions affect almost every element in the daily living of people—older persons have had to change their habits and the young ones know little of what the “mechanics of life” involved before the turn of the century. Furthermore, the most basic social processes such as production, transportation, and communication have been revolutionized in equally thorough fashion. Other trends have been toward urbanization, toward corporate ownership of industrial, commercial, and public service enterprises, toward an increase in governmental regulation, toward an expansion of credit, and so on. In turn, family life, recreation, education, and religion

¹ *Recent Social Trends in the United States*, report of the President's Research Committee on Social Trends (New York: McGraw-Hill, 1933). Chapters on Invention, Communication, Natural Resources, etc.

have undergone parallel changes so that the personal habits and the manner of thinking of people have been greatly altered from those of our grandfathers.

Many of the effects of this scientific revolution have been pleasant. The sphere of life of the average person has been increased tremendously by improved transportation and communication, particularly by the auto and the radio. Comfort has been improved wonderfully by modern plumbing, heating, lighting, and facilities for cooking, cleaning, and refrigeration. Women have been freed from much arduous work in the home by labor-saving devices and by the development outside the home of facilities for laundering, making clothes, cooking, preserving, and transporting food stuffs at low cost. Men have been freed of much heavy and dangerous labor by the development of machinery. Potentially, the fear of poverty and want has been removed by the demonstrated capacity of the country to produce all that is needed to feed, clothe, and shelter its population. Good music can enter a majority of the homes through the radio, beautiful pictures have been assembled in public museums, the literature of the world is available in free public libraries, and there is evidence that public attention is turning more and more to the aesthetic aspects of community development so that the drab ugliness of many of our towns and cities soon may be relieved. One might continue to point out almost indefinitely the values that science has brought to our civilization through relieving suffering, providing immunity from disease, and lowering infant mortality; but the task of this report is to call attention to unsolved problems, to assay their effect on emotional life, and to consider the function of education in the light of these realities.

SOME CONTEMPORARY SOCIAL PROBLEMS

Overstimulation

A "stepping-up" of the tempo of life generally is admitted. Increased speed in any process is applauded as an achievement

and "records" are made and broken with surprising regularity. The business executive is popularly pictured as answering two telephones and dictating to his secretary simultaneously. "Work hard and play hard" is a popular slogan. It includes no reference to relaxation. A steady increase in the death rate from heart disease is cited by physicians² as an outcome, just as a steadily mounting death and accident rate in automobiles marks the effect of the passion for speed in that area. Industrial efficiency, marked by the speeding up of machines, requires a steadier application to work processes, even though machines may have lessened the muscular effort required.

Children and young people are in the immediate range of this tremendous stimulation. At home, the continuous radio pours out the din of jazz, snappy sales talk, and thrilling skits with plenty of sound effects. At the movies, one exciting scene follows another with startling rapidity; at school, there are jangling bells breaking into the activity every so many minutes. The rapid sequence of unrelated tasks must be accepted by the hapless pupils at whatever cost to them emotionally, until the playground at recess time sounds like pandemonium let loose as they scream off their tensions. After school, there are music lessons and practice, club activities and supervised play, and in almost any community "scouts" can be seen drilling or playing basket ball or earning merit badges between eight and ten o'clock at night. It is the only time left for them and it must compete with "homework" at that. Newspapers and magazines are full of pictures and descriptions of accidents, crimes, and all that is spectacular; even the funnies deal constantly with danger and excitement. Where does the child have a chance to be himself or to consolidate the experiences of the day into any ordered unity? A century of progress has removed most of the opportunities for quietness, contemplation, and relaxation without making sure that all of the stimulation and

² S. R. Roberts, "Nervous and Mental Influences in Angina Pectoris," *American Heart Journal*, VII (1931), 21-35.

ensuing activity is of a significant sort. It has promoted anxiety.³

It cannot be taken for granted that the effects of this stimulation are universally bad, however. The human organism is tremendously adaptive, and it may be that higher general mental and physical efficiency, rather than burning out, will result from this universal stimulation. Medical science, nutritional studies, and our knowledge of the energy-regulating mechanisms of the body have progressed to the point where it may be possible to make this stimulation a means to the enrichment of life and the broadening of personality; but we are not sure of this. Careful scientific studies following the same children over long periods of time are needed to find out the truth.

Tremendous Increase of Wants

There is a tremendous pressure upon young people to get money to buy things. Window displays and various other media of visual advertising, the radio, the conversations of friends and within the family, the movies, magazines, and newspapers, and the mobility of youth giving them wider experience—all stimulate young people to want things. These wants are immediate and make adolescents restless in school or unemployment. It is no wonder that they are willing to enter blind-alley jobs, get-rich-quick schemes or even “rackets” that promise a big return for increased risk.

Even with several members of a family employed the figures show that the average family income⁴ of the country is far below the desire to spend. Frustration of this desire to spend must be almost universal. Doubtless, this operates to postpone marriage, to make adjustment in marriage difficult, and to dispose young people to delinquencies of various sorts, especially sexual and those involving fraud and theft. The maintenance of an

³ R. R. Willoughby, “Magic and Cognate Phenomena: An Hypothesis,” in *Handbook of Social Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1935), p. 498.

⁴ *Recent Social Trends*, *op. cit.*

adequate balance between desire and realization is most difficult in contemporary society and is a point of difficulty in affective adjustment. Studies by Sherman,⁵ by the Lynds,⁶ and by Willoughby⁷ bear directly on this point.

Uprootedness

Anonymity in apartment and tenement life in cities, mass recreation, broken homes in one out of every half-dozen marriages, and especially the necessity for frequent moves to find work make it difficult to make and keep life-long friends, to establish family traditions, to achieve standing in a community and develop a genuine interest in community affairs that rewards one with a sense of significant belonging. These conditions make adjustment more difficult in times of stress,⁸ they give a feeling of uprootedness that is unfavorable to the maintenance of morale and value sense. They make it difficult to achieve a sense of personal worth in social terms. Discouragement, cynicism, ruthlessness, and devil-may-care attitudes may ensue with a consequent loss of steadiness and motivation.

On the other hand, anonymity may mean much greater personal freedom and release from the inhibiting hand of convention. In this way, persons who would be broken by the inflexibility of custom under former conditions may find modes of adjustment to temporary difficulties or escape from the domination of parents. Conditions of financial stringency and occupational adjustment may be lived through without the anxiety occasioned by the necessity for maintaining prestige symbols. Without doubt, there are broad individual differences, based on temperament and experience, in the toleration of uprootedness. Anonymity may even be actively sought by some without being an evidence of pathology, but for others it is the

⁵ M. Sherman and T. P. Henry, *Hollow Folk* (New York: Crowell, 1933).

⁶ R. S. Lynd and H. M. Lynd, *Middletown; A Study in Contemporary American Culture* (New York: Harcourt, Brace, 1929).

⁷ Willoughby, *op. cit.*

⁸ L. I. Lublin and B. Bonzil, *To Be or Not To Be; A Study of Suicide* (New York: Smith and Haas, 1933).

last straw during periods of stress. Educators would like to know a great deal about the experience background of those who maintain affective balance in spite of frequent moves, the necessity for adjusting often to new acquaintances, and the lack of persons on whom they may depend for sympathy and help.

Insecurity

"Anxiety is the most prominent mental characteristic of occidental civilization."⁹ Insecurity and fear of insecurity are widespread. The insecurities most generally met or feared are loss of opportunity to work, illness, old age without income, and poverty. These causes of suffering grow out of seasonality of occupation, business cycles, the development of machinery to replace labor, changes in public taste, the mechanization of agriculture, the uncertainty of foreign markets, the restriction of foreign trade by barriers of various kinds, the undependability of investments including insurance, the fluctuating value of money, the high cost of medical care, and the necessity for buying almost everything.¹⁰ The anxiety occasioned by economic insecurity is most persistent and deranging because every aspect of life serves as a reminder of the danger. It is experienced alike by executives, white-collar workers, industrial and agricultural laborers, and farmers. Of course, some groups are more vulnerable than others, and often the more vulnerable are the less capable of meeting economic crises because they lack intelligence, education, investments, and influential friends.

The most unfortunate (social effects of anxiety) are those which act more or less directly upon children. A large part of the processes of character formation in the child are pretty certainly linked with the characters of adults closest to him, particularly his parents; and the presence of anxiety in these may operate in a number of ways to reproduce and multiply it in children. Thus, anxiety may be picked up by identification . . . anxiety may be generated through the im-

⁹ Willoughby, *op. cit.*, p. 498.

¹⁰ *Recent Social Trends*, *op. cit.*

possibility of finding adequate protection through the period when it is needed. The influence of teachers is only somewhat less . . . and that of the community in general, while weaker still, may yet be sufficient to determine whether the adolescent will approach adulthood with timidity or with resolution.¹¹

Competition

A question must be raised regarding the attitudes and emotions resulting from growing up in a strongly competitive society. "It is apparent that from two years of age and upwards, the pattern of our life is drawn largely in terms of an almost unceasing effort to excel . . . ours is . . . a society in which the child who can hardly talk has already learned that among the sweetest of life's satisfactions are the satisfactions of individual prestige."¹² Experiences in the family, throughout school and on into the period of entering a vocation, teach children in our society that success is the beating of other people. Standards of accomplishment, then, seldom are based upon criteria of absolute perfection, or even upon criteria of social usefulness, of pleasure brought to others, or of aesthetic effects created. The aim is usually to excel the others in the group. Indeed, a child who has done very creditable work may feel that he has failed because someone else has surpassed him. Another may be content, or even proud, of very mediocre actual accomplishment if it but excel that of the others in his group. Equally serious with the failure of a competition-motivated individual to associate success with social usefulness is the danger that he will strive to surpass others even to their detriment. The economic and personal interdependence that has developed in our society with the revolution that science has wrought in our ways of doing things, raises grave questions about the validity and desirability of value concepts based on competition as primary motivating forces in human conduct. Social cleavages and social disintegration threaten to arise therefrom.

¹¹ Willoughby, *op. cit.*, p. 504.

¹² G. Murphy and L. B. Murphy, *Experimental Social Psychology* (New York: Harper, 1931), p. 447.

On the other hand, greater individual productivity at physical and mental tasks is usually secured under competitive circumstances. Numerous experiments have demonstrated the truth of this assertion.¹³ Uniformly, children in school have been found to do better academic work when they were competing with each other. The same has been true of athletic contests—records are seldom broken when competing against time; it seems to require the active competition of another expert to supply the necessary stimulus. Allport¹⁴ and Dashiell¹⁵ have shown clearly that the competitive attitude very significantly improves the speed of mental work. Dashiell emphasized the fact that it is the desire to make a good showing rather than the mere presence of other people which produced the effect.

In contrast with the above must be the emotional effects of repeated failure in competition. Laird¹⁶ found that pledges to a fraternity suffered a considerable loss of motor efficiency in two out of four tests when they were subjected to the raillery and "razzing" of the active members of the fraternity. Travis,¹⁷ working with stutterers who, of course, habitually meet language frustrations in the presence of other people, found that his subjects were able to produce more associations (written) alone than in a group. The emotion aroused by associating failure with the group was sufficient to retard significantly the mental processes of eight out of ten individuals when working together.

Many more studies of the influence of failure in competition are needed because failure must always be the lot of the majority in a competitive society. It is easy to imagine that no

¹³ *Ibid.*, pp. 447-86. A résumé of these experiments is presented.

¹⁴ F. H. Allport, "The Influence of the Group upon Association and Thought," *Journal of Experimental Psychology*, III (1920), 159-82.

¹⁵ J. F. Dashiell, "An Experimental Analysis of Some Group Effects," *Journal of Abnormal and Social Psychology*, XXV (1930), 190-200.

¹⁶ D. A. Laird, "Changes in Motor Control and Individual Variations under the Influence of 'Razzing'," *Journal of Experimental Psychology*, VI (1923), 236-46.

¹⁷ L. E. Travis, "The Influence of the Group upon the Stutterer's Speed in Free Association," *Journal of Abnormal and Social Psychology*, XXIII (1928), 45-51.

small amount of delinquency and crime results from the conviction that one cannot win desired goals in socially acceptable ways.¹⁸ It is sure, too, that get-rich-quick schemes, gambling and lottery promoters find numerous easy victims among those who feel that they cannot win by saner methods. Doubtless, bizarre compensations emerge from the same condition: for example, religious fanaticism, the multiplicity of lodges and clubs, the persecuting of radicals, of persons of other cultures and races, the seeking of privilege by graft and racketeering, and the domineering attitudes of some police and army officers.

Conditions of Labor

The employment and discharge of labor, the determining of hours and conditions of work, and the fixing of wages all involve situations that are peculiarly liable to give rise to emotion. The wages a man receives represent food, clothing, and shelter for himself and family, all biological necessities. Continuity of employment is his only basis of security. The hours and conditions of work determine his physical condition to a considerable extent. The agreements which he makes about these matters sharply condition the welfare of all whom he loves. No wonder he sometimes is willing literally to fight when he is denied this basic security. It is human, too, that when he has security based on collective bargaining and the closed shop, he occasionally endeavors to wrest exorbitant wages and extra-privileged conditions from his employers. Life, as he has experienced it, is uncertain and he feels that he had better get all he can "while the getting is good."

On the management side there is equal pressure. The security of the managers and plant superintendents depends upon keeping production costs at a point where dividends for the stockholders and large salaries for the high officers of the corporation are earned. Since the traffic usually will not bear a selling price higher than a given amount for a given volume of production, then wages must compete with salaries, dividends,

¹⁸ W. Healy, *Mental Conflicts and Misconduct* (Boston: Little, Brown, 1917).

and fixed charges. Labor is all too frequently at a disadvantage in this competition since it has no voice in the management and frequently even lacks the opportunity to bargain collectively. There is not even a personal owner with whom he can deal on a human man-to-man basis, someone who might understand special conditions of need and strain a point to help out temporarily.

But insecurity and anxiety are not the only emotions of laboring people under modern conditions. Efficiency studies are frequently followed by the "speed-up" and the "stretch-out"; the moving assembly or production line requires rigid attention and unwavering action which seem to make the man himself an automaton. The resultant effect depends largely upon the attitudes of the men themselves, upon factors other than the process itself. Sometimes the men hate the efficiency expert and feel that they are being exploited. Under such conditions tension may mount, imperfect work or damage to materials increase, and even accidents may become more frequent despite every precaution. A general dissatisfaction ensues. In contrast, Dr. Elton Mayo¹⁹ has found that increased production, lessening of strain, and greatly improved morale accompany any evidences that convince the men that the company is being more considerate of them and their welfare. Production will be improved by almost any evidence of this, such as the introduction of a short rest period, the marking of hazardous spots, improved toilet and lounge room facilities, the encouragement of company athletic teams. In other words, if the attitudes of the men are changed, their moods are changed—companies that have held the confidence of their men have kept their loyalty, too, and the men may be said to find pleasure in their work.

Occasionally, gross injustices are practiced by employers. "Sweat-shop" conditions are not entirely a thing of the past and fly-by-night enterprises which set up loft factories, operate for a month or two and then disappear overnight without pay-

¹⁹ In verbal interview.

ing wages—after a given contract is completed—are still to be seen. Situations like these are common enough to form the basis for considerable emotion on the part of the laboring population and for attitudes of distrust among a much larger number than has actually been defrauded. Neither state nor national governments have been able to eliminate these occasional gross violations of the most elementary human ethics.

There is an extensive literature developing in industrial psychology²⁰ which cannot be reviewed here. In general, it may be said to show that attitudes are most significant factors in determining productive efficiency, the morale of workers, and the frequency and form of conflicts between labor and capital. These attitudes are conditioned by the social contacts and early life of the workers, by their experiences on the job, and by the extent to which optimum conditions for themselves and their families are maintained through the fruits of their labors.

Delinquency and Crime

It is to be feared that the public will regard the crime problem as solved by the virtual extermination of notorious gangsters by the G-men; but we are far from a solution of this problem. Emotionally unstable and intellectually incapable persons are being born regularly into environmental conditions which will inevitably lead them to delinquent behavior. Shaw's²¹ study has shown in convincing fashion that a social causation precipitates criminal acts in those persons.

He found foci of delinquency in the city and demonstrated that the amount of delinquency decreased at a certain consistent rate along all radii from these foci. Certain social conditions were found to be particularly potent in creating these centers of delinquency. For example, they occurred particularly in the border regions between well-established cultural groups.

²⁰ E. Mayo, *The Human Problems of an Industrial Civilization* (New York: Macmillan, 1933). See also M. S. Viteles, *Industrial Psychology* (New York: Norton, 1932), and W. R. Miles, "Age in Human Society," in *Handbook of Social Psychology*, *op. cit.*, pp. 596-682.

²¹ C. R. Shaw, *Delinquency Areas* (Univ. of Chicago Press, 1929).

Thrasher's²² study of gangs bore out this finding. The gang, he found, almost inevitably tends to become delinquent under the conditions of community disorganization obtaining in these border-line areas; but the membership of the gang is primarily determined by proximity, by the mere fact of living in a particular area rather than by any innate characteristics of the individual boy.

It may be inferred from these studies and from the case histories of individual delinquents that conditions of poverty (deprivation), of unstable home conditions (broken homes, lack of established mores, and uprooting), of contact with older persons of vicious habits (gangs, criminals, delinquents), and of concurrent stimulation to desire things (clothes, amusements, cars, feminine companionship) such as comes in urban life, constitute a combination of environmental influences in which it is extremely easy to fall into delinquent behavior. In fact, delinquency becomes very difficult to avoid. Of course, there are individual delinquents in all communities, but enough studies have been made to show that their bad behavior is a functional matter, rather than the simple expression of innate tendencies. Healy and Bronner²³ and the Gluecks²⁴ have thrown considerable light on the relationship between environmental factors, delinquencies, and the likelihood of successful parole. All have agreed that the treatment accorded early habits and early delinquencies is of particular importance.

An analysis of a series of case-history studies of criminals and delinquents seems to show that antisocial behavior is nearly always the result of warped affective reactions; either emotions or attitudes or both are at the extremes of the curve of variability. When the analysis is pushed to a functional level, it can be seen that delinquents are recruited mainly from those (a) who are victims of an intolerable hiatus between desires and

²² F. M. Thrasher, *The Gang* (Univ. of Chicago Press, 1927).

²³ W. Healy and A. F. Bronner, *Delinquents and Criminals, Their Making and Unmaking* (New York: Macmillan, 1926).

²⁴ S. S. Glueck and E. T. Glueck, *500 Criminal Careers* (New York: Knopf, 1930).

the ability or opportunity to achieve these desires, (b) who are suffering unbearable repression at home and school, (c) who find it impossible to achieve a satisfactory sense of valued belonging in our society because of racial, religious, or cultural differences, or because of personal stigmata, (d) who are deprived of adequate affectional life by broken homes or because of the personal characteristics of their parents or of themselves, (e) whose life has been overstimulated until they thirst for more and more emotion, (f) whose life has been starved emotionally until they feel that anything is better than the complete drabness they have experienced, and (g) who find in the delinquent act a thrill which releases them from unbearable tensions of a wide variety of types. The close relationship of the functional maladjustments listed and the basic personality needs outlined in a previous chapter is apparent at once. The problem of preventing crime and delinquency is the problem of providing opportunities for self-realization and of training to affective maturity.²⁵ It will not be solved merely by teaching precepts or exterminating the unfit. Homes and schools will have to concern themselves more effectively with the direction of the desires of their pupils and with experiences that influence the development of basic value concepts.

Ethnic Problems

The United States has ethnic problems of particular importance in any study of the role of affective factors in education. One out of every ten of the population is a Negro. The population also includes considerable numbers of American Indians and of Orientals. Between these three racial stocks and the white race a genuine cleavage exists which, in our country, always operates to the detriment of the non-white persons—they are refused certain privileges and opportunities guaranteed to all white persons. But equally important cleavages exist within the white race itself, growing out of religious and cul-

²⁵ See W. Healy and A. F. Bronner, *New Light on Delinquency and Its Treatment* (New Haven: Yale Univ. Press, 1936).

tural differences. These, too, involve economic, social, and occupational discrimination, oftentimes only one step less severe than between racial groups. Naturally, both the inter- and intra-racial antagonisms are more acute in some localities than in others, and more burdensome and thwarting for some members of a group than for others. Within the white race, we may distinguish particularly the cleavages between Protestant and Catholic, between Jew and Gentile, and between the Nordic, South European, and East European cultures.

Plenty of evidence exists that group antipathies are almost universal throughout the population. For example, Thurstone established the order of nationality preference of a group of American students. They preferred to associate with persons of other nationalities in the following order: American, Englishmen . . . Frenchmen . . . German . . . Italian . . . Greek . . . Japanese . . . Hindu . . . Negro.²⁶ (Intermediate nationalities are omitted here.) Bogardus²⁷ has developed "social distance" tests which confirm this ranking and which are most interesting in showing just where the individual would draw the line of contact with persons of other nations or races. Using this test on over 1,700 native-born Americans from all over the United States, it was found that from 94 to 97 per cent would admit Englishmen to any relationship to themselves from citizenship in the country to personal friendship and close kinship by marriage; 91 per cent were willing to accept the Irish as citizens of the country but only 70 per cent to close kinship by marriage; 82 per cent were willing to accept the Spanish as citizens but only 55 per cent would accept them on the same street as neighbors and only 28 per cent to close kinship by marriage. As the "social distance" increases, the area of admission is decreased; only 58 per cent were willing to accept Armenians as citizens, only 46 per cent accepting them in the same occupation, 28 per cent as neighbors, 15 per cent as close friends, and

²⁶ L. L. Thurstone, "An Experimental Study of Nationality Preferences," *Journal of General Psychology*, I (1928), 405-25.

²⁷ E. S. Bogardus, *Immigration and Race Attitudes* (Boston: D. C. Heath, 1928).

only 9 per cent as close kin by marriage. Feeling against the Japanese was still more pronounced—only 29 per cent were willing to accept them as citizens, only 13 per cent as neighbors, and only 2 per cent as kin by marriage. These results have been substantiated by many other studies.

The amount of frustration of personal goals occasioned by these racial and national prejudices is tremendous. Members of the underprivileged groups cannot obtain employment in certain occupations even though properly qualified; young people may not marry between the groups no matter what their personal desires; exclusion or segregation in schools and public places may be practiced; derogatory colloquialisms become a part of everybody's speech, and members of minority groups are reminded many times a day that they do not belong. Nor are the prejudices limited to white Americans. All along the scale the different groups are antagonistic to less fortunate ones or to those who differ in religious or cultural background.

The task of the public schools, as they endeavor to develop common attitudes and similar value concepts among these groups, is a tremendous one. The efforts to reduce friction and to bring sympathetic understanding and recognition of group contributions to the national life have been sporadic and ineffectual. Materials on which such instruction could be based and teachers of sufficient background to develop them have been lacking. The work of the Service Bureau in Human Relations,²⁸ established in New York City through the efforts of Mrs. Rachel DuBois, deserves special notice and wide support for its work in this field. This Bureau already has done significant experimental work and is in a position to expand greatly its experimental program if adequate support were assured.

International Anarchy

The international situation speaks for itself. A state of anarchy exists in which every sovereign state claims the right to

²⁸ Now a part of the Progressive Education Association under the Commission on Intercultural Education.

act always in its own interest and without consideration for the effects of its own actions upon the peoples of other countries. This gives rise to an emotionalized nationalism that is a constant threat to the peace of the world. Suspicion, hatred, and fear of the populations of other countries are well-nigh universal emotions at the present time. These are fanned endlessly by the splendid communication systems which span the world and keep us apprised constantly of the activities of people in every part of the world. Add to these the propaganda of special interest groups which have international ramifications or which can profit from conflicts or trade barriers; consider the lobbying activities of munitions makers and professional patriots, and reckon the inertia of national tradition.

The task of education as it undertakes to inject reason and consideration for the welfare of other peoples into attitudes about international problems is seen to be extraordinarily difficult. The citizen of a nation must limit his activities in his own behalf in consideration of the welfare of others, he must also accept responsibilities for supporting and protecting his nation with his wealth and life if necessary. Just so must every nation be willing to limit its activities and to risk its wealth and life in behalf of the peace and security of the community of nations before we can have lasting peace. It is not enough for schools to cease their glorification of military exploits and their jingoistic, nationalistic teaching; they must inculcate positive attitudes of civic responsibility for the welfare of humanity at large. If the schools of the various nations fail in their education for world citizenship, events will ultimately teach the ethical realities which exist—but it will be at a tremendous cost in human suffering and cultural loss.

THE TASK OF FORMAL EDUCATION

After reading and rereading the foregoing chapter, some debate and concern has arisen. There is no denying the truth of the unpleasant emotions created by the social conditions de-

scribed; but what can schools do about it? Many of the problems require government action, others require the swift crystallization of opinion among adults, some even need the support of world-wide opinion. The schools of the country are the agencies of society itself and are sensitive to influential opinion; they deal only with children and youth. Under the circumstances, they are likely to remain rather feeble instruments for effecting quickly the social changes implied above. Nevertheless, they have their responsibilities which must not be shirked.

Schools can lead their older pupils *to examine* critically the social situations about them. Supporting this right to examine the contemporary scene, there is quite a body of tradition which only the more arrogant pressure groups dare to deny. In an honest examination of contemporary life, numerous *social problems are indicated* clearly. These may be safely *described and explored as problems which our country is facing*, without indoctrinating young people to belief in the particular solutions put forward by one or another pressure group. To get perspective on these problems, young people can be led to *trace the factors which gave rise to them*, and this usually shows each problem to be the latest condition following a long series of social changes; the culmination of many different influences. Through such a study, pupils almost inevitably come to *expect further change* and get an opinion about *the direction of the expected change*. This is about as far as schools can go in dealing directly with the controversial issues of the present, but it is as far as they need to go. By this procedure, young people will be *habituated in the use of a scientific methodology in thinking about social problems*. Also, they should have *discovered* for themselves, the *social values* for which succeeding generations of mankind have struggled.

If these italicized objectives can be realized in any considerable proportion of the secondary school and college populations, the educational system will have done its share to maintain our democracy. Meantime, churches, parents, the legis-

lative and judicial branches of the government, industrial leaders, bankers, and hosts of everyday men cannot dodge an immediate responsibility in connection with pressing social problems. Educators are no longer so naïve as to suppose that they can work miracles; they recognize that "society is the patient" and that contributions to its return to health must come from a wide variety of persons and places.

VIII

THE INFLUENCE OF AFFECTIVE FACTORS UPON LEARNING

NATURE OF THE LEARNING PROCESS

We are justified in raising the question whether the concept of learning, or of memory, embraces a unitary process which can be studied as a single problem, or whether it may not instead cover a great variety of phenomena having no common organic bases.¹

In this manner Lashley epitomizes his introduction to a description of nervous mechanisms in learning. He had previously pointed out that "hysteresis, fatigue, adaptation or acclimatization, increase in excitability, progression of physiological states, associative memory or conditioned reflexes, after-imagery, immediate memory, and recognition have been variously distinguished as constituting different types of alteration"² of behavior by experience. In other words, according to Lashley, the essential characteristic of learning is the alteration of behavior by experience, and this can be brought about in a number of different ways which doubtless rest upon quite different physiological bases.

Lashley points out that "hysteresis, fatigue, adaptation, and increase in excitability imply only a change in the intensity of stimulation necessary to elicit the response" while "in progression of physiological states . . . the external stimulus is constant while the reaction varies. This type of alteration does not indicate any change in the innate pattern of internal connections between receptor and effector, but only a temporary

¹ K. S. Lashley, "Nervous Mechanisms in Learning," in *Handbook of General Experimental Psychology*, Carl Murchison, editor (Worcester, Mass.: Clark Univ. Press, 1934), p. 457.

² *Ibid.*, p. 456.

change in the relative conductivity of different systems.”³ Lashley holds that a different mechanism is implied by the remaining types of modification and calls attention to the fact that everyone is not agreed that the conditioned response is the basis for such different types of learning as habits, imagery, logical memories, immediate recall, and recognition. Toward the end of his paper, Lashley concludes that “in spite of the vast experimental literature which has grown up . . . it is doubtful that we know anything more about the mechanism of learning than did Descartes when he described the opening of the pores in the nerves by the passage of animal spirits. His statement sounds remarkably like the reduction of synaptic resistance by the passage of the nerve impulse.”⁴

The theory of the physiological basis of learning which is most current now, doubtless, is that learning depends upon the establishment of specific neural arcs or patterns between receptors and effectors and upon the changes produced in the synaptic resistances within already established neural patterns. Of this theory, Lashley has the following to say:

The evidence from many lines of investigation opposes interpretation of learning as the formation of definite “conditioned-reflex arcs” through the cerebral hemispheres or through any other part of the central nervous system. . . . The adequate stimulus to habitual reactions and even to instinctive acts is a ratio of intensities distributed in time or space and capable of calling out the response when applied to any sensory cells within a wide range. Analysis of the central nervous mechanisms reveals likewise an independence of individual nerve cells and a determination of response by masses of tissue and relative excitation of different parts. . . . The phenomena can be described only in vague dynamic terms, and attempts to particularize either in terms of individual reactions or of anatomical units fail to express the most striking characteristics of the problem of organization. The unit of functional organization seems to be not the reflex arc of Sherrington or the mechanism of reciprocal innervation of T. G.

³ *Ibid.*

⁴ *Ibid.*, p. 493.

Brown, but the mechanism, whatever be its nature, by which response to a ratio of intensities is brought about.⁵

Lashley's penetrating paper makes it clear that all learning is not alike, does not follow the same "laws" or take place under the same conditions (Experience modifies behavior in several different ways and each may have a different physiological basis.)

INFLUENCE OF AFFECTIVE FACTORS ON LEARNING

Inasmuch as several different ways of learning exist, we may expect affective factors to show several different sorts of influence upon the rapidity and permanence of changes in behavior. This chapter will be devoted primarily to an analysis of the various ways in which this influence on learning of feeling, emotion, and attitudes may show itself. A complete review of the experimental literature will not be presented, but characteristic supporting evidence will be cited.

Physiological Relationships between Learning and Emotion

So little is known definitely that little needs to be said about the physiological relationships between learning and emotion. Lashley indicates something strikingly similar to the production of critical physiological gradients in brain areas as the basis for modifications in behavior. Chapter III of this report sets up the hypothesis that when such gradients pass certain critical slopes, emotional behavior ensues. The implication is that the relationship between emotion and learning may be very direct, because both may be phenomena involving the altering of gradients or of "ratios of intensity," as Lashley puts it. However, when all the research studies have been digested, we still know extremely little about the actual role of affective factors in various types of learning.

THE "LAWS" OF LEARNING

There has been much loose thinking about the "laws" of learning. For example, the rules governing the conditions un-

⁵ *Ibid.*

der which learning will take place have been confused with the rules governing the conditions under which the skill or knowledge can be displayed. Also, "laws" of learning frequently have focused attention upon relatively unimportant factors in learning after dismissing vital factors by the prefatory statement "other things being equal." In schools the "other things," notably motivation, are seldom or never "equal." The "laws" of frequency and recency become quite meaningless in a child who simply is not permeable to a given educative experience because of other preoccupations.

Yet, these "laws" remain with us and today dominate a tremendous amount of educational practice. Before we shall understand clearly why children forget so readily the scholastic material to which they are exposed, we must understand what is important to them as human beings, and what this importance means in affective terms. Before we shall discover how to make schools effective and socially-useful learning a joy, we must gain functional insight into the processes of personality maturing.

MOTIVATION AND LEARNING

A person is motivated to learn when he has the active attitude of desiring to learn. Everyone knows from common experience that the active desire to develop a given motor skill, to establish the easy recall of certain data, or to understand a given functional relationship, plays an important part in determining the speed and efficiency of the learning. Motivation influences directly the intensity of effort that a child will put forth to learn. It determines the single-mindedness, the unity of attention, that he is able to give the task. It mediates the amount of fatigue or discomfort he is willing to undergo in the process of learning. Motivation has an important relationship to the satisfaction felt upon successful learning, and to the disappointment experienced upon failure.

If the above statements are true, it becomes important to know from what motivation arises. Apparently, it is from the

utility to the individual of the anticipated learning—at least, it is from the individual's concept of the utility of the learning in terms of one or another of his personality needs. If the utility of the learning seems genuine and direct, the motivation is strong; if the value of the learning seems doubtful or indirect, the motivation is weak or absent, and the child is not permeable to the experiences designed to teach him.

The question of experimental verification of these concepts about motivation must be raised at once. Unfortunately, we have to depend largely upon animal experiments for our data. This is because experimenters are unable to control the conditions in which human beings satisfy their basic needs. To understand this, it is only necessary to understand that the basic needs include air, food, water, opportunity for exercise, for sexual function, for affection, for status among one's fellows, and for truly rich experience. Only by controlling fully the life conditions of subjects can these basic motivations be controlled. Such control is feasible with animals, but neither feasible nor desirable with human subjects. This necessity for depending upon animal experiments for data about motivation has an extremely serious defect. It means that the role of the higher mental processes, especially of attitudes and value concepts, have remained relatively unexplored, misunderstood, or neglected in the psychological formulations presented to explain human behavior. Knowledge of the role of these factors must be sought by the analysis of the causation of human behavior in other than strictly controlled experimental situations. With these limitations in mind, the following illustrative researches are described.

In an early experiment with rats, Dodson found that "in the case of hunger, the rapidity of learning increases as the hunger increases."⁶ Tolman and Honzik also deprived rats of food for varying periods and studied the effect on learning to run a maze. They found that very hungry rewarded rats learned to

⁶ J. D. Dodson, "Relative Values of Reward and Punishment in Habit Formation," *Psychobiology*, I (1917), 231-76.

run the mazes more quickly and with fewer errors than did less hungry rewarded rats. The slowest of all were the less hungry non-rewarded rats. They actually took more time to run the maze on successive trials. Tolman and Honzik conclude:

Hunger and food reward, or in more general terms, drive and the possibility of its satisfaction, are the two factors which, when both are present, produce the most rapid learning. On the other hand, absence of both of these factors produces the slowest learning.⁷

To test the effects on learning of the removal or introduction of the possibility of satisfying a drive the same experimenters employed other rats. These hungry rats were run through mazes for eleven days with no food found at the end of the maze, and then food was placed at the end of the maze. Immediately, these rats markedly reduced both their time and their errors in running the maze. Another group of rats ran the maze for eleven days, finding food at the end each day. They had reduced their time and errors progressively, but both time and error scores increased greatly when they no longer found food upon the completion of the maze.⁸

Simmons compared the effects of a wide variety of motives upon maze-learning in rats. She found that different motives produced different rates of learning in the following order from most to least effectiveness:

(1) female in heat, (2) bread and milk followed by return to home cage, (3) finding her litter at the end of the maze, (4) bread and milk, (5) sunflower seed, (6) return to home cage, and (7) mere escape from the maze. Providing a stronger incentive resulted in a great increase in the speed of learning.⁹

The simultaneous presence of two drives, only one of which is rewarded, results in faster learning than is found in rats with

⁷ E. C. Tolman and C. H. Honzik, *Degrees of Hunger, Reward, and Non-reward and Maze Learning in Rats*. Univ. of Calif. Pub. in Psychology, IV (1930), No. 16, 241-56.

⁸ E. C. Tolman and C. H. Honzik, *Introduction and Removal of Reward and Maze Performance in Rats*. Univ. of Calif. Pub. in Psychology, IV (1930), No. 17, 257-75.

⁹ R. Simmons, "The Relative Effectiveness of Certain Incentives in Animal Learning," *Comparative Psychology Monographs*, II, No. 7 (Baltimore: Williams & Wilkins, 1923), p. 79.

only one drive. This study of effects of the summation of drives was done by Elliott.¹⁰ Tolman, Honzik, and Robinson showed that increasing the hunger of rats resulted in the elimination of long blinds and elbow blinds before the elimination of short blinds, showing that those factors of greatest disadvantage to securing the desired end were eliminated first in the learning. The effect of curiosity as an incentive was shown when less hungry rats eliminated the short blinds before the long ones.¹¹ In other words, the directness and efficiency with which the animal worked to accomplish a given piece of learning depended upon the number of motives or drives he had, and upon whether they were very strong or rather weak. In each case, learning was correlated directly with the strength of the motivation.

Not many significant studies of the effects of genuine incentives on the learning of human beings have been found. Nevertheless, it seems safe to conclude that both the speed and the efficiency of learning are related directly to the genuineness and the strength of the motivation to learn. In the light of this fact, it is amazing that school people so seldom ask themselves the questions: Have children any real reason for learning this material which we are offering them? Is there any real reason which we can demonstrate to them for learning this material? If any genuine reasons exist, how can they be demonstrated to children? One would expect that the establishment of motivation would be a significant part of the planned program of all schools; instead, elaborate studies are made of different "methods" of presenting material in the actual learning situation with little or no attention to preliminary motivation.

¹⁰ M. H. Elliott, *The Effect of the Appropriateness of Reward and of Complex Incentives on Maze Performance*. Univ. of Calif. Pub. in Psychology, IV (1929), No. 6, 91-98.

¹¹ E. C. Tolman, C. H. Honzik, and E. W. Robinson, *The Effect of Degrees of Hunger upon the Order of Elimination of Long and Short Blinds*. Univ. of Calif. Pub. in Psychology, IV (1930), No. 12, 189-202.

MOOD ON ENTERING THE LEARNING SITUATION

The mood engendered in a child by conditions prior to entering the learning situation may play a role in learning which is supplemental to the influence of direct motivation. It is conceivable that a child who has just been scolded, who has just emerged victorious or defeated from an altercation with a playmate, whose mother lies seriously ill, who has just been smiled upon by the loveliest girl in the school, or whose parents have just quarreled hotly in his presence enters a learning situation in a much poorer or better condition for effective work than he did the day before or will a week later. Perhaps it is correct to say that his motivation is affected; but certainly the temporary loss or gain of motivation, because of a transitory affective state, is a different problem for school people from the continuous lack or presence of motivation in a child based upon his concept of the value of the material for him. The treatment to be accorded these transitory moods is quite different from that necessary to meet more important deficiencies in motivation.

Very little experimental evidence is available on this point. Dodson found that if he starved his rats for more than forty-eight hours, there was a sharp decrease in the rate of learning as the period of starvation was increased.¹² Whether this was due to emotion or to loss in physiological efficiency is a matter of conjecture.

Among human beings, most of the studies bearing upon this topic deal with the effects of awareness of previous success or failure. E. B. Sullivan got subjects to learn a series of nonsense syllables after giving each one the same directions. Several days later, each one was directed to learn an equivalent series after being told that on the previous occasion he had made the best score in the group or the worst score. She found that the "time taken to learn a memory series is increased by the knowledge of failure in a previous performance." She also reports that

¹² J. D. Dodson, *op. cit.*, p. 275.

"the value for recall, measured by abbreviation of time taken to learn, is less in the case of the failure report and greater in the case of the success report."¹³ In other words, a knowledge of previous failure causes a person to enter a learning situation in an affective state less favorable to effective learning than a knowledge of previous success. Gilchrist obtained similar results with a class of fifty college students. After giving the Courtis English test to all, he divided the class into equal groups, praised one group and reproved the other, and then repeated the test. In general, the praised group improved, while the reproved group deteriorated, except that among the latter the initially better students deteriorated most and some of the initially poor ones improved a bit.¹⁴

INFLUENCE OF AFFECT EXPERIENCED DURING LEARNING

A great deal of experimental material exists describing the influence on learning of affective reactions aroused during the learning process. The data involve both animal and human subjects, and the affective reactions provoked vary greatly in intensity with corresponding differences in the effects on learning.

Punishment during Learning

Warden and Aylesworth used three groups of ten hungry white rats. One group was rewarded simply by finding food when it had solved its problem box correctly, the second group was rewarded by finding food upon the correct solution and was also punished by a strong electric shock every time a wrong choice was made. The third group was punished every time the wrong choice was made and was not rewarded by finding food after a correct solution. At the end of forty-one days of training the reward group of rats were scoring only about 60 per cent right responses and had shown little gain during the preceding

¹³ E. B. Sullivan, "Attitude in Relation to Learning," *Psychological Monographs*, XXXVI, No. 3 (Whole No. 169). (Princeton: Psychological Review Co., 1927), p. 141.

¹⁴ E. P. Gilchrist, "The Extent to which Praise and Blame Affect a Pupil's Work," *School and Society*, IV (1916), 872-74.

twenty-one days. The punishment group made a perfect record from the thirty-third day, and the reward-punishment group made perfect records from the thirteenth day.¹⁵ There is no ambiguity in these results. Punishment for wrong responses, coupled with the satisfying of a need at the end of correct behavior, resulted in by far the fastest learning of the correct behavior. In connection with this animal experiment, and with others in the literature, it should be noted that if the punishment given was too severe the rats refused to "work." Too much unpleasant affect developed during the learning process removed or overcame the motivation and made the correct learning not worth the price the animal was required to pay for it.

Using human subjects, Rexroad investigated the effects of electric shocks administered for inaccuracies in responding to a set of colors presented in chance order. The shocks resulted in great care to avoid errors and led to the rapid adoption of a plan to learn a code. At first the shocks seemed to disrupt the responses, but this was quickly offset by the "incentive effect."¹⁶

Bunch studied the effect of electric shocks on adult human learning of a maze. He found a decrease of 50 per cent in the number of trials required to learn the maze, a decrease of 30 per cent in the total time required to learn the maze, a decrease in the variability of reactions, a decrease of 30 per cent in the total number of errors made, a decrease in all types of errors but an increase in the time required for each trial.¹⁷

Hurlock studied the effects on accomplishment in addition tests of continuous praise and continuous reproof. A third group was simply ignored while taking the test. The results showed that, regardless of age, initial ability, or sex, praise resulted in

¹⁵ C. S. Warden and M. Aylesworth, "Relative Value of Reward and Punishment in the Formation of a Visual Discrimination Habit in the White Rat," *Journal of Comparative Psychology*, VII (1927), 117-18, 123-25.

¹⁶ C. N. Rexroad, "Administering an Electric Shock for Inaccuracy in Multiple Choice Reactions," *Journal of Experimental Psychology*, IX (1926), 1-25.

¹⁷ M. E. Bunch, "The Effect of Electric Shock as Punishment for Errors in Human Maze Learning," *Journal of Comparative Psychology*, VII (1928), 343-59.

the best work, reproof was initially effective but soon lost its value, while the ignoring of a group left it to achieve the least.¹⁸

Vaughn conducted an extensive series of experiments in which he investigated the relative effectiveness of positive and negative verbal statements, indefinite threats, definite threats with demonstration, and punishments actually administered in assisting persons to learn to inhibit certain movements of the arm. There were many trials and appropriate instruction was administered after each trial. The certainty of punishment actually administered proved to be the most efficient way of teaching the inhibition of these arm movements—perhaps because the greatest affective reaction was secured in this manner. Individual differences in susceptibility to punishment were found, children appeared to be less influenced by it than adults, and the inexperienced were influenced less than the experienced. Among all subjects, instructions unaccompanied by punishment rapidly lost their effectiveness.¹⁹

Summarizing the punishment experiments, it may be said that punishment, administered during learning for mistakes made, has universally been found to increase the speed and efficiency of learning, providing it does not produce emotional reactions of more than a critical intensity. Affect beyond this intensity will inhibit further attempts at learning. It is conceivable that the amount of punishment that will be endured depends to a considerable extent upon the affective strength of the motivation. This is supported by an experiment by Peterson, in which subjects were penalized by an electric shock every time a right answer was given. Despite the unpleasant concomitant of correctness, learning continued at the usual rate.²⁰

¹⁸ E. B. Hurlock, "The Value of Praise and Reproof as Incentives for Children," *Archives of Psychology*, XI, No. 71 (New York: Columbia Univ. Press, 1924).

¹⁹ James Vaughn, *Positive versus Negative Instruction* (Chicago: National Safety Council, 1928).

²⁰ J. Peterson, "Learning When Frequency and Recency Factors are Negative and Right Responses Are Painful," *Proceedings of the Thirty-eighth Annual Meeting of the American Psychological Association*, 1930, pp. 16-17.

Affective Associations with Material to be Learned

Doubtless, a person's affective state during learning fluctuates considerably as a result of associations based upon earlier knowledge or experience with the material to be learned. This opinion is supported by a growing body of experimental material, much of it dealing with the recall of various lists of words varying in affective "loading."

Whately Smith administered Jung's word association test to a number of subjects, measuring the galvanometric deflections occasioned by each word as registered through the usual psycho-galvanic apparatus. After a certain time had elapsed, the subjects were asked to recall the lists of words and the relationship between memory and the galvanic deflection was studied. Taking the size of the deflection as an index of the affective loading of each word, Smith concludes:

First, that memory for words is influenced by affective tone; secondly, that . . . its influence may be exerted in two diametrically opposite directions Affective tone . . . should, therefore, be regarded as of two kinds, one of which facilitates, while the other impedes the remembering of words which it accompanies.²¹

Concepts formulated earlier in this report would support the opinion that the high intensity level of the emotions associated with certain unpleasant words or the meaning associated with these words in the ego organization of the individual would lead to the active inhibition of certain words, while the milder emotional reactions associated with certain other words, both pleasant and unpleasant, would facilitate recall. Various psycho-galvanometric studies have shown that the gross size of the deflection is not an adequate index of the strength of the affect associated with the stimulus. This concealed from Smith the real reason why some unpleasant affects facilitated recall while other unpleasantness inhibited it.

Carter, Jones, and Shock reported a study of the role of affective factors in associative learning. The affective values

²¹ W. W. Smith, *The Measurement of Emotion* (New York: Harcourt, Brace, 1922), p. 45.

of the words were rated by the subjects involved; psychogalvanic measurements, using the words as stimuli, were made; and very reliable learning data were secured. The results indicate that there are definite relationships between emotional factors and ease of learning.

Words which are pleasant or unpleasant tend to elicit larger deflections of the galvanometer than words which are indifferent. The composite deflection-score for the words of the I (indifferent) category is reliably different from the P (pleasant) and U (unpleasant) composites, in terms of group averages. Learning scores of individuals tend to be highest for pleasant words, next for unpleasant words, and lowest for indifferent words. Statistically reliable group differences in composite learning scores are found for words in the P, I, and U categories.²²

Subsequently, Carter reported a continuation of the research cited above. His conclusions are quoted in full:

1. The efficiency of learning is greatest for pleasant words, intermediate for unpleasant words, and least for the indifferent words.
2. The differences become larger and generally more reliable when the mass of data is increased. This establishes the fact that the results achieved are independent of the particular words used.
3. The use of a large list of adequately selected words, the careful rotational procedures used in the experiment, and demonstration of trends in cumulated data have established the probability that the trends are brought about by the emotional tone of the words, or by other factors functionally associated with emotional factors.²³

While the findings of Carter have been corroborated by others,²⁴ several investigators have reported that pleasant words are learned best, indifferent words less well, and unpleasant words with least facility.²⁵ It is very interesting that Smith and

²² H. D. Carter, H. E. Jones, and N. W. Shock, "An Experimental Study of Affective Factors in Learning," *Journal of Educational Psychology*, XXV (1934), 203-15.

²³ H. D. Carter, "Effects of Emotional Factors upon Recall," *Journal of Psychology*, I (1935), 49-59.

²⁴ A. Silverman and H. Cason, "Incidental Memory for Pleasant, Unpleasant and Indifferent Words," *American Journal of Psychology*, XLVI (1934), 315-20.

²⁵ H. Cason, "The Learning and Retention of Pleasant and Unpleasant Activities," *Archives of Psychology*, XXI, No. 134 (New York: Columbia Univ. Press, 1932).

Carter, Jones, and Shock report that unpleasant words sometimes facilitate and sometimes impede learning, as evidenced by recall, while other investigators find that unpleasant words have relatively little facilitating effect. The suggestion can be made that a constant factor, operating in variable amounts in the different studies, may account for the apparent contradictions, this constant factor being the tendency to inhibit the recall of words closely associated with factors which threaten the personality of the subject. Such words would be overloaded with affect of a very different level of intensity from that carried by most unpleasant words. Examples may be drawn from the lists published by Carter.

Cry baby, castor oil, bad habit, dumb-bell, sickness, disgrace, funeral, poison, bloody sore, mean teacher, no money, secret worries, impure mind, pimply face, dirty liar, yellow coward.

Doubtless, these words carry unpleasant affect to all young people varying somewhat in intensity from person to person. But among the hundred subjects used, there may have been three or four who felt that their status with their social group was seriously menaced by acne, so much so that they tended to inhibit the recall of "pimply face." Such a tendency in a few cases, to inhibit the recall of an unpleasant word because of its overload of affect, would lower the general correlation of unpleasant affect with learning efficiency because it would always act in the same direction. In some studies with short word lists and relatively few subjects, the accidental result might even be to make it appear that unpleasant affect retards learning. The correct opinion seems to be that both pleasant and unpleasant affect at the level of mild emotion facilitate learning, while unpleasant affect at the more intense level of strong emotion may inhibit recall for the sake of protecting the personality,

C. A. Lynch, "The Memory Values of Certain Alleged Emotionally Toned Words," *Journal of Experimental Psychology*, XV (1932), 298-315.

R. Stagner, "Factors Influencing the Memory Value of Words in a Series," *Journal of Experimental Psychology*, XVI (1933), 129-37.

not because the association has not been formed but because its recall is overloaded with affect.

A little more light is shed upon this topic by two experiments of a different sort. J. W. Harris caused subjects to form associations between odors and two-digit numbers. He reports:

The affective qualities of the odors seem to have played a certain subordinate role in the fixing of the associations some distinctly pleasant (and in a few instances, some distinctly unpleasant) having formed especially prompt and lasting associations with their numbers, but our evidence on this matter is meager.²⁶

Fox unexpectedly unearthed a similar relationship as he sought to determine the relative value of the "mixed" and the "entire" method of learning two sonnets. The two methods were found to be equally good as measured both by immediate recall and by delayed recall, the number of promptings required being practically the same for each. But when the subjects told which of the sonnets they preferred, it was found that the number of promptings was markedly less for the preferred one. He concludes, then, that "memory, as evidenced both by immediate and delayed recall, is more efficient in those cases where there is a distinct subjective preference for what is learnt."²⁷

Complexity of Learning, Time Factors, and Affect

Learning to recognize, learning to recall one element of an association when the other element is given, learning to understand the interrelationships within a series of contributing factors, and learning a generalization from a mass of data are learnings of different orders of complexity. Conceivably, learnings of these various complexities may be facilitated or retarded to very different extents by different types and intensities of emotion.

The relationship between the capacities of the individual for

²⁶ J. W. Harris, "On the Association Power of Odors," *American Journal of Psychology*, XIX (1908), 561.

²⁷ C. Fox, "The Influence of Subjective Preference on Memory," *British Journal of Psychology*, XIII (1923), 404.

learning and the complexity of the learning he is asked to accomplish has an important influence upon the affect experienced during learning.

The relationship between the complexity of learning required and the time available for doing the learning may have an important influence upon morale during learning.

The relationship between the complexity of the learning demanded, and the period in a child's development and experience, when the learning task is encountered, may influence morale greatly.

Our common sense tells us that any of the relationships mentioned above may be the source of affect that will help or hinder learning in children, that will give free rein to motivation or suppress it. Yet there are almost no experimental data available and little conscious recognition of problems that are of real importance to the makers of school curricula. Extensive experimentation during the next few years would be very desirable.

Myers studied the speed and accuracy of groups of girls who learned word lists under conditions allowing unlimited time and again with strict time limitation at the minimum time used by any subject in the first test. In the second test, there was a marked improvement in speed of learning and very little change in accuracy. A larger proportion of the group got perfect scores under conditions of time limitation than under the unlimited time.²⁸ Possibly, the knowledge of the time limit heightened affective tension to the point of mild emotion. It is regrettable that more experimental material is not available in this area.

Facilitation and Retardation of Learning

Many stimulations occurring during the learning process have a facilitating or retarding effect. For example, music and rhythm apparently are facilitating factors for several types of

²⁸ G. C. Myers, "Learning against Time," *Journal of Educational Psychology*, VI (1915), 115-16.

learning. Diserens found that music delays fatigue, speeds up voluntary activities, increases the extent of many muscular reflexes, reduces and changes suggestibility, and alters the electrical conductivity of tissues.²⁹ The picture given is essentially one of mild emotion: Diserens calls attention to the "release of energy" by music and maintains that the "immediate capacities" of the individual are altered. Both Dexter³⁰ and Huntington³¹ contend that climatic factors such as temperature, barometric pressure, and humidity influence mood and work output. Huntington has also shown that climatic factors including electrical phenomena influence the rate of recovery from disease.

The presence of other persons has a facilitating or retarding influence upon learning, depending upon the sort of affect developed. For example, Schmidt found that school children made fewer errors in arithmetic, writing, and composition in work done in classrooms with other children than in work done alone at home.³² In most cases, the facilitating effect of the presence of other persons probably is due to an increase in motivation based upon the desire to win status by appearing to an advantage. Hurlock found that girls, younger children, and those of inferior ability responded most to the rivalry motive in working with modified Courtis arithmetic tests, and that in each case the rivalry group exceeded a control group.³³ Mayer³⁴ tested boys averaging fourteen years of age in arithmetic, writing from dictation and learning nonsense syllables, first in isolation and then working together. Spontaneous rivalry developed, and the scores obtained in the group were

²⁹ C. M. Diserens, *The Influence of Music on Behavior* (Princeton Univ. Press, 1926).

³⁰ E. G. Dexter, *Weather Influences* (New York: Macmillan, 1904).

³¹ E. Huntington, *Civilization and Climate* (New Haven: Yale Univ. Press, 1924).

³² E. Schmidt, "Experimentelle Untersuchungen über die Hausaufgaben des Schulkindes," *Sammlung von Abhandlungen zur Psychologischen Pädagogie*, No. 1, 1904, pp. 181-300.

³³ E. B. Hurlock, "The Use of Group Rivalry as an Incentive," *Journal of Abnormal and Social Psychology*, XXII (1928), 278-90.

³⁴ A. Mayer, "Über Einzel und Gesamtleistung des Schulkindes," *Archiv für die Gesamte Psychologie*, I (1903).

from 30 per cent to 50 per cent superior to those obtained in isolation. Desire to win the affection or approbation of a teacher or parent also may heighten the speed of learning when either is present.

On the other hand, the presence of other persons may retard rather than facilitate learning, if those persons bear unpleasant affective associations which tend to divert the attention or reflect loss of status or affection. Probably this, too, involves a loss of direct motivation, as when a boy feels that a teacher is unfair, that parents are repressive, or that the group has little confidence in him. Supporting this, Travis has shown that stutterers produce fewer free associations in a group than working alone.³⁵

AFFECTIVE CONSEQUENCES OF LEARNING

The affect following learning, be it praise or blame, reward or punishment, is thought by some to have an effect in facilitating or retarding later recall or re-enactment. Chase studied the effects of reward and punishment in a series of experiments with 213 children varying in age from twenty-seven to ninety-six months. He reports that failure-repetition, failure-reproof, and failure-punishment are more effective in producing desired changes in behavior than are success-repetition, success-praise, and success-reward.³⁶

Gates and Russland, using seventy-four college students as subjects, tested improvement in motor coordination and in color naming when praise, blame, and no comment followed initial tests. In coordination, the praised improved most, the blamed next, and the no-comment group least. In color naming, the blamed improved most, the praised next, and the no-comment group least.³⁷ In both studies, the presence of either

³⁵ L. E. Travis, "The Influence of the Group upon the Stutterer's Speed in Free Association," *Journal of Abnormal and Social Psychology*, XXIII (1928), 45-51.

³⁶ L. Chase, *Motivation of Young Children*. Univ. of Iowa Studies in Child Welfare, V, No. 3 (1932).

³⁷ G. S. Gates and L. O. Russland, "The Effect of Encouragement and Discouragement on Performance," *Journal of Educational Psychology*, XIV (1923), 21-26.

pleasant or unpleasant affect following the initial test seemed more favorable to learning than did lack of affect.

Tait read lists of words of indifferent affective value to his subjects. Immediately thereafter, he read them "something pleasant, optimistic, and cheerful" or "something unpleasant and depressing." When tested on recall of the indifferent lists, Tait found 21 per cent of the words recalled that had been followed by pleasant reading and only 15 per cent of those followed by unpleasant reading. No control using indifferent reading was used.³⁸

Ludvigh and Frank taught twelve subjects to associate pairs of nonsense syllables. Thirty seconds after each list was learned, each subject was subjected to stimulation from a series of six indifferent, six unpleasant, or six pleasant odors. Recall of the associations was attempted ten minutes later. The order of success was (1) for lists followed by pleasant odors, (2) for lists followed by indifferent odors, (3) for lists followed by unpleasant odors.³⁹ Frank then set up a similar experiment in which he combined pleasant and unpleasant odors with indifferent odors and concluded:

When odors remain constant, a shift in their affective value, as determined by absolute judgment, has no corresponding effect on the reproduction of the syllables . . . the odors themselves determine the degree of reproduction and . . . there is no direct causal relationship between the reproduction and the affectivity.⁴⁰

Taken altogether, the experimental data regarding the influence of the affective consequences of learning upon retention are very inadequate. The experiments really deal with the effects of the affective consequences of a bit of behavior upon motivation to repeat that behavior. The results agree fairly well that persons tend to avoid behavior that was followed by

³⁸ W. D. Tait, "Effect of Psycho-physical Attitudes on Memory," *Journal of Abnormal and Social Psychology*, VIII (1913), 10-17.

³⁹ E. J. Ludvigh and J. D. Frank, "The Retroactive Effect of Pleasant and Unpleasant Odors on Learning," *American Journal of Psychology*, XLIII (1931), 107.

⁴⁰ J. D. Frank, "Affective Values vs. Nature of Odors in Relation to Reproduction," *American Journal of Psychology*, XLIII (1931), 483.

unpleasant consequences and to repeat behavior followed by pleasant consequences. This supports the conclusion that unpleasant consequences facilitate learning to inhibit (Chase), while pleasant consequences facilitate learning to re-enact. It appears that the actual event is remembered better when affect follows learning than when no affect follows (Gates and Russland). Psychoanalytic data support this conclusion.

• TEMPERAMENT OF THE LEARNER

It is probable that there are extensive individual differences in emotional lability which may have important influences on the learning process. A volatile child may be moved easily from an unpleasant to a pleasant mood or from a mood of indifference to one of positive or negative motivation according to the skill and understanding of the teacher preparing him to enter the learning situation. A less volatile pupil might maintain an earlier mood with greater firmness. To a greater extent than a phlegmatic child, the labile child may be influenced by emotional associations connected with the material to be learned or the presence of other children. Climate and environmental surroundings may disturb some persons more than others, and certain children surely have more available energy for persisting in an experience than others have.

Unfortunately, experimental data about the effect of temperament on learning are almost non-existent. Laird gives one small item relating to recall. Sixty-two students in a psychology class wrote down the names of the first ten people they thought of and later wrote down the names of ten persons in the order of their likeableness. Averaging the results, Laird found that the most likeable persons had been included in the first list five times as frequently as the most disliked. The students were then asked to rate themselves and each other as optimists, mixed, or pessimists. The optimists were found to have written down the names of best-liked persons in 72 per cent of the cases and the least-liked in only 15 per cent of the cases. The pessimists offered an interesting contrast, only 27 per cent of them

having written the best-liked person into the first, while 45 per cent of them had recorded the name of the least-liked person.⁴¹ This finding, together with the mention made by Carter, Jones, and Shock that some individuals learn disagreeable material most readily, suggests that temperament may play a role in determining the influence of affect upon learning.

Peters has classed school failures into three types. The first type shows an excess of purposeless and badly organized activity; the second type is relatively inactive and passive, while the third type is the "feebly inhibited."⁴² The validity of these type findings and the possible role of temperament remain to be demonstrated. Regensberg has discussed emotional maladjustments in gifted children and one gets the impression that these maladjustments often grow out of uneven development in which emotional maturity hardly keeps pace with intellectual development making it difficult for the child to fit into the school groups in which he finds himself.⁴³

CONCLUSIONS

1. All data show that adequate motivation is essential to genuine learning. No learning experiment is acceptable which does not take motivation into account.

2. Such data as are available show that either pleasant or unpleasant affect during the period of learning facilitates learning.

3. Some data indicate that recall of learned material with strongly unpleasant associations is inhibited even though the actual learning has taken place.

4. The level of emotionality reached during learning may be of great importance. Pleasant or unpleasant feelings, mild emotion, strong emotion, and profound shock may have very differ-

⁴¹ D. A. Laird, "The Influence of Likes and Dislikes on Memory as Related to Personality," *Journal of Experimental Psychology*, VI (1923), 249-303.

⁴² W. Peters, "Zur Psychologisches Typik des Abnormen Kindes," *Zsch. f. päd. Psychologie*, XXVIII (1927), 19-35.

⁴³ J. Regensberg, "Emotional Handicaps to Intellectual Achievement in Super-normal Children," *Mental Hygiene*, X (1926), 480-94.

ent learning consequences due to differences in physiological concomitants.

5. Data seem to show that punishment for a wrong reaction when it occurs during the learning process together with the successful satisfaction of the motivation at the conclusion of the learning constitute jointly the best conditions of the learning.

6. All learning is not alike; therefore, we may expect variation in the influence of affect upon different types of learning.

7. Taken altogether, the experimental data concerning the influence of affective factors on learning are very inadequate. Much additional experimentation, especially in functional situations, is needed.

IX

AFFECT AND EDUCATION

WE ARE LIVING in a very complex and highly industrialized society. In such a society, the training of the young tends to be given up by parents and churches and, therefore, must be taken over by the government. The result is the development of characteristic educational institutions, established and organized by law and supported at public expense. Buildings, equipment, and educational methods tend to become standardized under these conditions because the aims of education remain relatively static, embedded in law and tradition. These patterns of institutional purpose and organization show the equivalent of momentum—they have to continue in a fixed direction, unless checked or deflected by vigorous public opinion stirred by important events. This is why schools show social lag, being late to change in ways that will render them effective in training children to live under new social conditions and to meet new social problems. This is why schools cannot assimilate readily the new knowledge about children's needs and about personality development. Because of their institutional and legal status, they have to wait for the development of public opinion in influential circles.

There is evidence that the time is becoming ripe for a thorough overhauling and remodeling of educational aims and procedures. Strong complaints about education are occurring in the press, in popular magazines, in the pulpit and forum. Public opinion is stirred by the frequency of juvenile delinquency and adult crime, by widespread racketeering in business and corruption in local government, by the mounting incidence of mental breakdowns and insanity, by the low quality of literature, news reporting, and radio programs accepted by the masses.

Despite the effectiveness of our schools in giving certain common knowledge and basic skills to most children, people are condemning public education for its failure to produce young persons of strong character, with high ideals of social service and beauty and with enough emotional stability to meet life's reverses without breakdown. This is hardly fair to our schools or to the professional personnel working in them. Through the years, educators have increased steadily their effectiveness in doing the things which society has permitted them to do. Reading, arithmetic, spelling, and health habits now are taught better than they ever have been taught, and teachers have been tireless in trying to inculcate character and good social attitudes by word of mouth and by celebrating the birthdays of great American patriots. It is not their fault that true character and genuine emotional poise cannot be inculcated by the use of the methods and materials heretofore permitted to them. But now public opinion seems to be changing; a new mood which recognizes that times are different and admits that education may have to enter an experimental period seems to be abroad.

OBJECTIVE OF REPORT SCIENTIFIC, NOT PROMOTIONAL

It should be remembered that the objective of this report is to set down the findings of an exploratory study, not to prepare a handbook for the new education. We are endeavoring to set up hypotheses to be tested by later practical experimentation. Our conclusions are tentative. Our desire is not to preach a new dogma, or initiate a new movement, but to stimulate reasoned research that will validate or disprove current trends of thought about character development and personality maturation.

The remaining chapters of the report treat questions of educational aims, methods, material, and personnel against the background of earlier chapters. To sharpen the concepts developed and to clarify the issues that will appear, the present chapter presents a summary of the major findings that are regarded as established in earlier chapters.

EDUCATIONALLY SIGNIFICANT FINDINGS

The variety of approaches covered and the fragmentary documentation of the earlier chapters has not permitted the clear presentation of the relationships of the different sections to each other. The following résumé is designed to tie together some of the emergent concepts and thus to bring a clarification of their meaning for education.

1. Emotional reactions are primarily adjustive, but may be disruptive. All behavior may be described as aimed, more or less directly, at the maintenance or procuring of conditions that are optimum for the preservation of the essential biochemical equilibria of the organism. In accord with this view, there is a growing tendency to think of emotional reactions as physiologically adjustive. This concept is displacing the belief that emotions are specific, innate patterns of behavior evoked by specific stimuli, the remnants of instinctive animal behavior inadequately eliminated in the process of evolution.

We have found evidence that behavior which properly may be termed affective can be tonic to the body functions generally. On the other hand, if the need seems to exist, emotional reactions can result in a widespread reorganization of the body economy appropriate to a very rapid expenditure of energy. This is accomplished physiologically by temporarily suspending certain organic functions and by greatly intensifying others. Emotional reactions are truly disruptive and disorganizing only when they fail to be instrumental in solving the problems of the individual, when the person remains for a long time out of adjustment, or when he is thrown into an intense state of shock by the rudeness of the disruption of his life. Of course, the specific physiological reactions which occur are innate, the result of body structure; but they are not set off invariably by specific stimuli, nor are they invariably combined in certain patterns. The meaning of the total situation for the individual is the final arbiter of emotional behavior.

2. Emotional behavior is learned, especially with regard to exciting causes. The situations which evoke emotions in each

of us come to do so primarily as the result of experience. The patterns of overt behavior which we show take form as the result of experience too. There exists clearly a tendency to recognize the importance of the experiences of childhood in shaping these patterns. Psychoanalysis has revealed that in many forgotten episodes of relatively early life lie the explanations of many of our likes and dislikes, our fears, anxieties, and emotional preoccupations. Naturally, many of these emotional "conditionings" are bizarre and unjustified in the light of adult realities, but they nevertheless seem genuine to the individual concerned, being inlaid deep in the fabric of his personality. Still, they are far from the fixed and invariable entities they would be if implanted by heredity as parts of the innate personality structure. We may conclude safely, then, that the overt expressions of emotions are trainable in the first place, and that the re-education of the emotionally maladjusted is usually feasible.

3. The patternings of emotional behavior are determined functionally. A third important tendency of modern psychological thought is toward the recognition that emotional behavior is not patterned accidentally, that is to say, without biological reason. Just as food is no stimulus to a sated child, so anger does not arise except when the behavior designed to meet some felt need is frustrated. Fear does not appear except when the feeling of security is genuinely jeopardized; nor does affection grow except as the accompaniment of or at the prospect of the ministrations of someone to personal desires and needs. Mental hygienists have made it abundantly plain that the situations which arouse emotions in a young child, and which are therefore instrumental in establishing the dimensions and the patterning of his emotionality, are situations in which he is endeavoring to satisfy some one or another of his basic needs. These needs are the dynamic factors in personality, the wellsprings of behavior. The extent of their satisfaction is the measure of the "adjustment," the "normality," the happiness of the child.

These needs justly may be called "unconscious." The infant is not clearly aware that he is hungry but feels a general uneasiness that pervades his whole body and leads to general activity that will subside only when he is fed. In the same manner children, and even adults, feel a general uneasiness, a vague unrest, when some one or several of their needs remain unfulfilled. Both attention and behavior are selective toward the meeting of these needs, but the individual is rare indeed who understands clearly what he is driving at. The personality is permeable chiefly to situations that are related to his needs; yet, it is not to be wondered at that poor substitute goals or dubious paths to satisfying a need are found so frequently. This is especially true when conventions taboo the admission to oneself that the need exists in addition to thwarting direct action toward satisfaction. Nor is it surprising that mental confusion is common, even among intelligent persons, as they try to work out their needs in our highly institutionalized though rapidly and blindly changing society. These persons are trying to accept society as it is and at the same time to do what they themselves naturally want to do.

4. Three basic categories of personality needs exist: the physiological needs, the social needs, and the ego or integrative needs. The particular needs within these categories cannot be met by any simple, single line of behavior. They can be satisfied only by behavior which changes as the child grows older, by behavior which is appropriate to the social situations in which the child finds himself and to the cultural group to which he belongs. In fact, the process of personality maturing can be described best in terms of an evolution of the patterns of behavior by which these needs are met. It must be remembered, too, that behavior appropriate to meet a need varies from situation to situation at any given maturity level and also from child to child, according to temperament and capacities. For these reasons, we cannot set down a particular group of habits or reaction patterns as the invariable index of successful maturing at each level and hence as primary aims of the educative process.

This becomes clearer as we learn the conditions, the experiences, and the mental organization by which personality maturing is achieved.

a. The physiological needs are essentially needs to function. Given a basic structure and certain dynamic processes inherent in life itself, the organism must seek continuously to function in appropriate ways. This implies a great amount of behavior that is purposive toward the maintenance of metabolism and other inevitable biochemical processes; it implies a more or less regular rhythm of activity and rest; it leads surely to procreative behavior. Appropriate behavior to meet these needs develops from the sucking and swallowing of the nursing infant to the elaborate patterns necessary for successful vocational life and for the use of economic institutions on the adult level. The procreative aspect grows from the sensory enjoyment of nursing and being fondled to the complicated behavior involved in successful family life with mate and children. To mature by evolving behavior patterns which lead naturally from the simple acts of infancy to the complex reactions of the adult is not easy for the most gifted and privileged. How much more difficult it is, then, for the less gifted and the underprivileged!

b. The social needs are essentially needs for status. We need standing, an acknowledged role among the people into whose midst we are born and with whom we must work out our physiological needs. These status needs are met by establishing various relationships at different ages and the success or failure of these relationships is taken by each person as the evidence of his own value or worth in society. Various status needs are most persistent though the pattern of behavior by which they are satisfied must be changed repeatedly. For example, we cannot feel secure in our status unless we are in the situation of giving and receiving affection almost continuously throughout life. Of course, the objects of affection change from time to time, but the role of affection in giving status remains primary. For the same reason, we must achieve an ever widening

series of belongings as we grow older. We must win recognized membership first in the family circle, then in play groups, then successively in school groups, community groups, and vocational groups. Ultimately, we should feel ourselves significant members of a comprehensive culture group or nation. Unless we are accepted successively into these groupings, we cannot feel secure in our social role. All through these social belongings, it appears necessary to preserve a modicum of likeness to other persons. This means that there are distinct limits beyond which our behavior may not vary without loss of status in a particular group, and it also means that persons bearing oddities in appearance, in gifts, in manners, or in social or cultural background have serious handicaps to overcome in acquiring status and satisfying their social needs.

c. The ego needs are essentially needs to assimilate experience and achieve belief in self. Each of us needs to have enough experiences to teach us what life is all about, and how we can meet it. On the basis of these experiences, we must organize our thinking in such a way that our behavior is consistent and has direction. Only under these conditions can we feel the dynamic on-goingness of life and attain genuine assurance of successful and worthy selfhood. These ego needs are served by ever widening contacts with the various aspects of reality, and by the progressive symbolization of experience through which a person develops valid generalizations, behavior directing attitudes, and value concepts. Essential is the emergence of a feeling of harmony with reality in its various aspects, for a person must not believe himself to be at cross-purposes with nature, with society, or with the spiritual ultimates of the universe. With the growth of knowledge, and the development of skills, an individual should be able to maintain a fair balance between success and failure in his various undertakings and achieve a sense of his own personal adequacy to meet life. This cannot occur, however, unless the individual finds himself increasingly free to direct his own behavior as he grows in knowledge and wisdom. Given a happy compounding of experience and success

in accomplishing the mental organization and independence described above, a person may satisfy his physiological and social needs and achieve a sense of individuality and of worthy selfhood.

5. Personality maturing is marked by the achievement of behavior appropriate to meet the needs felt at each age level. The maturing of personality is not a simple genetic unfolding of patterns of behavior rooted in the inheritance of the individual; nor yet is it a simple adaptation of behavior through conditioning, by which the environment mechanically produces "adjustment" in the organism. Instead of these, personality maturing is the result of the dynamic interaction of the organism and the environing conditions. The needs of the individual are strongly dynamic—for function, for status, and for personal significance in an active, on-going way. The physical and social conditions of the environment and the capacity condition of the individual determine the immediate and particular pattern or patterns by which the needs may be worked out in a given situation. The individual must discover, develop, and employ these appropriate patterns of behavior. Conditions change steadily as the child grows older; therefore, his behavior must change too, if he is really to grow up. Essential in this whole process is the increasingly conscious recognition of what constitutes reality. This insight into realities is the basis of the elaboration of behavior patterns, skills, and purposes which enable one to function, to obtain and maintain status, and to grow in knowledge, understanding, and feeling of personal worth despite changing conditions and expanding responsibilities. Personality maturing in human beings is based upon a tremendously complex set of variables.

The maturing of personality has been the chief concern of prophets and philosophers for many centuries. Inappropriate behavior has been termed sinful, ugly, or unsocial, depending upon the preoccupations of the philosopher. The person showing inappropriate behavior has been regarded as possessed of the devil, willfully wicked, guilty of poor taste, or as the victim

of vicious inherited instincts. In contrast with such points of view, recent scientific studies have shown us that immature individuals are the victims of either improper learning, induced by unwholesome environments, or of *inadequate* learning, born of lack of experience or based on lack of capacity to understand relationships and to establish valid rules for their own conduct. The old philosophy sought to mature personalities by the punishment of inappropriate behavior, the direct inculcation of precepts or generalized rules of conduct, and the establishment of a dynamic central purpose in life based upon the fear of hell and the hope of heaven. The new psychology has not yet crystallized an effective methodology for maturing personality. The various schools of psychoanalysis, of psychiatry, and of psychology are at variance with each other as to the most appropriate procedures. For educators, the basic fact to be kept in mind is that failure to develop behavior which successfully meets personality needs at each successive age will result in strong disruptive emotions, in regressive or infantile behavior, and in false thinking or rationalization. These cannot fail to result in warping a person's view of life and leaving the personality immature and unhealthy. Therefore, every effort should be made by the educational system to contribute vitally to the satisfaction of the pupil's basic needs.

6. The role of attitudes and value concepts is of particular importance in the mature personality. Experience teaches us to expect certain results or effects from certain behavior. From experience emerge concepts about the role of particular objects, forces, and persons in satisfying our basic needs. These concepts give rise to attitudes—positive and negative—toward these objects, forces, and persons. Such attitudes may be quite generalized or highly specific. In other words, the accumulation of experiences and the consequent growth of understanding result in mental organization that distinctly values some factors above others. Furthermore, this valuing becomes the basis for projected future behavior, designed to afford additional opportunities for function, for improving our status and in-

creasing our effectiveness. We call this projected behavior "purpose."

a. Attitudes define areas of emotionality. Just as the frustration of immediate needs produces anger, so the blocking of behavior aimed at producing more desirable conditions in the future arouses antagonism. Just as conditions menacing our immediate safety arouse fear, so happenings which jeopardize the attainment of security in the future give rise to anxiety. But our purposed behavior is projected on the basis of our attitudes and value concepts—it is the latter which have shaped and directed it. This is equivalent to saying that our attitudes, value concepts, and purposes really define the conditions under which each of us will be joyful, sorrowful, sympathetic, afraid, patriotic, affectionate, angry, or remorseful. It is through our attitudes that situations have meaning (are evaluated). The stimulus value of an environing situation is seldom inherent in the situation itself, then. It is to be found in the relationship between the situation and our basic needs *as this relationship is interpreted through our attitudes*.

b. Valid attitudes are essential to maturity. The attitudes and purposes of all of us seem valid to ourselves; they have grown out of our own experiences. But psychiatrists have shown clearly that maladjusted persons usually have attitudes and purposes which are not valid in the light of objective reality, that this lack of validity of concept and attitude is the real basis for their difficulties. It follows that the mature person is the one whose attitudes, value concepts, and purposes *are* valid in the light of reality. The mature person is happy because he can see himself making progress toward valid goals.

Under contemporary conditions, it is particularly difficult to be sure that one's value concepts are correct and one's purposes valid. Material and social realities are changing almost constantly because we are learning rapidly how to control and exploit our physical and material resources. Each development in the material world modifies social practices and social relationships and gives rise to numerous adjustment problems to

be met successfully only through changed attitudes. As a result our attention remains focused primarily upon the material, physical, and social meanings of our experiences, and our purposes relate primarily to material and social matters. Perhaps we are neglecting seriously some very important ethical, aesthetic, and spiritual realities. It is not beyond the realm of possibility that material things and social processes should be used primarily to attain ethical, aesthetic, and spiritual ends. At least, it is certain that material things and social conditions are justifiable as ends of behavior only when ethical and aesthetic realities are taken into consideration in achieving them. In other words, much contemporary maladjustment may be due to the fact that our attitudes and value concepts are based on an over-appreciation of physical and social realities and an under-appreciation of other equally significant aspects of reality, namely ethical, aesthetic, and spiritual facts.

c. Which attitudes are valid? The question immediately appears: What are the specific realities too frequently neglected in the modern development of value concepts and purposes? Here, finally, we are stopped. Ethical, aesthetic, and spiritual realities have been discovered and stated only partially. Our social and cultural insights are incomplete and immature. Just as the young child is only partially aware of the value concepts of his culture, so the various races and cultures of mankind are only partially aware of ethical, aesthetic, and spiritual values. All of us as adults partake of this racial and cultural immaturity. Therefore, we cannot look forward in the near future to a utopia in which educators, backed by mature racial experience, will guide the experiences of the young with such expertness that all except the organically unfit will be happy and fully "matured." This is the equivalent of saying that the millennium cannot be ushered in by giving over the schools primarily to the inculcation of an arbitrarily chosen set of value concepts, as is being done in countries suffering from dictatorships. Such an education does permit the ready manipulation of the behavior of the population by those in power but it has no assurance of coming to a good end.

d. Adjustment is maintained by purposive behavior. Fortunately, we may be happy without being completely "adjusted," without being in the condition of having satisfied permanently all of our needs. The essentially dynamic character of physiological processes permits us to find joy in working toward adjustment, in the re-evaluation of experience and the reformulation of attitudes and value concepts. It is only frustration beyond a bearable point and loss of hope to the point of desolation which disorganizes and destroys.¹ The incompleteness of racial experience and the inadequacies of our human understanding of value are really challenges which offer the opportunity for significant behavior and significant evaluation of experience in the future. Our ego needs can be met best by entering this stream of human experience and endeavoring to progress in it.

7. Numerous situations in contemporary society have been described which lead to the serious frustration of basic personality needs, or to the development of attitudes which are known to be unwholesome. These situations occur most often in family life, in the economic and political areas of social life, and in connection with the disjunction of socially aroused desires and ambitions and the capacity, opportunity, and physical stamina of the individual. Naturally, these situations interfere with the wholesome maturing of personality in many children and foredoom them to maladjustment, illness, and unhappiness, which in turn add to the difficulties of the rest of society. Efforts to produce healthy adults, therefore, cannot be limited to the training of the normal and to the diagnosis and re-education of the immature and the maladjusted, but also must be directed at social evolution. Social institutions and processes must be changed gradually so as to provide more genuine opportunities for everyone to achieve the satisfaction of basic personality needs. This necessity confronts our educational institutions with a formidable, if not an impossible, task. They must try to give children a body of experience which will help them remain adjusted and happy in a rather unwholesome and rapidly

¹ See Wm. Burnham, *The Normal Mind* (New York: D. Appleton, 1924).

changing society. At the same time, they must build in these individuals a social dynamic leading to purposeful activity directed at orderly social evolution. The ideals of the committee members lead us to append the statement that democratic procedures alone should be employed in effecting this social evolution.

THEORETICAL IMPLICATIONS OF THE FINDINGS FOR EDUCATION

Aims of Education

Schools are not like animal farms or plant nurseries where the selection of parent stocks, breeding for specific traits, and the elimination of the unfit precede the culture of the fit for socially useful ends. Schools in a democracy must take all of the children of all of the people, value them all equally, and provide the best possible conditions to encourage their development into persons who can find life worth living and, at the same time, be useful members of society. On breeding farms, only the value of the product to society needs to be considered, but in schools, the value of personalities to themselves (in their own eyes) is of equal importance with their social usefulness. In fact, it inheres in the philosophy of a democracy that those social institutions and processes are esteemed most which contribute most to the full maturing of a maximum proportion of the population. In such a society, the primary aim of educational institutions must be to provide the best possible conditions for the development of all children, rather than to standardize the personalities entrusted to them to meet some social aim, such as procuring good soldiers or effective industrial robots. This implies recognizing and re-educating children who are the unfortunate sufferers from unwholesome conditions outside of school, as well as nurturing and stimulating the fortunate and gifted.

Accepting the philosophical position stated above, the concepts that we have formed about personality development demand the following of education:

(a) that schools be organized and operated in such a way as to contribute directly to the satisfaction of children's personality needs; (b) that schools provide experiences through which children and young people can learn how to bring about the satisfaction of their own needs in contemporary society while they are, at the same time, contributing to the satisfaction of the needs of others; (c) that schools provide experiences favorable to the development of attitudes and value concepts that will support the maintenance of democratic institutions and processes in our society, and facilitate the further evolution and development of those institutions for the common good. The chief aims of education are defined by these demands.

The task of the schools is seen to be particularly difficult when one considers the varieties of capacity and background that different children bring to the classroom. The mere recognition of needs is a technical task of the greatest complexity and, of course, it cannot be expected that identical experiences will meet the needs of all or contribute effectively to the development of all. The school itself has to become a small democratic society in which apparently conflicting needs and interests are adjusted on the basis of the greatest good for the greatest number.

Methods of Educating

The best method of maturing children is to provide them with situations in which they can work out behavior that will satisfy their personality needs as the latter appear. This does not mean stressing drill for mastery of "fundamental processes"; it does not mean rote learning and recitation; it does not imply the use of regimentation to teach good habits and conformity; it does not permit indoctrinating all children with arbitrarily chosen emotionalized concepts; it does not suggest that teachers should have a bag of tricks for motivating pupils. These methods produce psychological immaturity.

Instead, this means giving children a chance for the progressive accumulation of meaningful experiences that will reveal

the world as it is. It means offering experiences that will orient children in the physical world, in the social world, in time, and in aesthetic, ethical, and spiritual realities as far as we have discovered them. It means helping children to organize their experiences into generalizations, attitudes, and value concepts. It implies granting them opportunities for significant action in relation to their needs, attitudes, and emerging purposes. It means granting them increasing responsibility to direct their own behavior, and it implies challenging them with the world's unsolved problems as a means of evoking purpose. All of this must be experienced by each child in the company of and with the cooperation or opposition of other children.

Wise and sympathetic adults must be present in the school to set the stage for experiences, and to give counsel and encouragement based upon insight into the needs of children and the processes of society. Implied too, is the encouragement of children to attempt creative activities by which tension may be relieved and attitudes crystallized. Individual differences must be recognized and provided for by offering opportunities appropriate to needs and within the capacities of the children to comprehend. Finally, the evaluation of pupil progress must be in terms of personality development, rather than in terms limited to the description of increase in specific knowledges and skills.

Professional Personnel of Education

The persons in contact with children in our schools should be thought of as personnel workers rather than as teachers. They should be selected for their intelligence, their sympathetic insight into children's needs and behavior, and for their skill in getting along with children. They should not be selected primarily on the basis of their erudition, "disciplinary ability," or knowledge of "teaching techniques." Their training should consist in a broad study of the realities of the world and of life, in a careful study of the growth characteristics, behavior, and needs of children and in actual experiences with

children. It should include the formulation by them, with helpful guidance, of a conscious educational philosophy.

Persons should be licensed as educational workers only after an extensive supervised apprenticeship. Every care should be taken to afford them opportunities to satisfy their own personality needs, and schools should be administered in such fashion that the professional personnel is supported in the free creative handling of children. This implies for the teacher freedom from administrative domination and regimentation, participation in the determination of policies, responsibility for arranging the details of educative experiences, and freedom from outside pressure and interference. Under no other conditions can the selected personnel needed for the delicate professional work of nurturing the development of personality in our children be obtained and maintained.

X

ASPECTS OF EDUCATION NEEDING STUDY

NO ARMCHAIR EXPOSITION of the detailed methods and materials by which education can accomplish the aims outlined in the preceding chapter can be acceptable. Methods and materials must be produced experimentally and their value must be proven by actual trial under usual school conditions. This chapter will discuss particular aspects of education which seem to offer fruitful fields for experimentation in the light of the concepts of personality maturing arrived at in earlier chapters. In some areas the research must be done in laboratories and university centers; for example, new instruments and methods for the diagnosis of personality needs and the evaluation of personality development must be produced. In other cases public schools, clinics, and institutes must cooperate in longitudinal research studies of growth; for example, we need to get greater insight into the normal sequences of behavior by which children with different trait configurations are able successively to meet the personality needs appearing during growth. Still other experimentation must be undertaken directly in the schools by educators attempting to translate the diagnoses of needs and the insights about growth into practical policies. Of course, the orientation of the discussion in this report must be primarily toward the affective aspects of development, but it must be remembered that a personality is a dynamic functional unity which cannot be broken up into segments susceptible of entirely separate consideration.

UNDERSTANDING THE AFFECTIVE CHARACTERISTICS OF PUPILS

No matter what the type or level of school, it is hard to see how effective guidance can be given to a maturing personality

without a preliminary consideration of the emotional characteristics and personality needs of that individual. In our opinion, at least four characteristic factors in the affective make-up of each child should be evaluated periodically and the results entered into the cumulative record of his development. These four factors are: (a) the energy make-up of the child; (b) the status of the child's personality needs; (c) the patterns of affective behavior shown by the child under various circumstances; and (d) the established attitudes and value concepts revealed by the child.

Energy Structure

It is important to know the dynamic energy structure of the child because it reveals the general level of activity to be expected from him and indicates the limits beyond which he should not be stimulated. Since emotional reactions are primarily attempts of the organism to maintain the energy structure within optimum limits of variation, a knowledge of this dynamic structure can show something of the child's emotional lability and suggest the frequency and duration of the rest periods needed by him. This knowledge is also of great value for purposes of educational and vocational guidance. Furthermore, school people need to be made sympathetically sensitive to such changes in energy structure as may be caused by illness, by emotional tension or by the glandular changes accompanying pubescence. Demands upon children should be varied to accord with these changes in available energy.

Basic research, both quantitative and descriptive, is necessary in this area. We need to know more about the meaning and reliability of our various measures of the energy output of human beings, especially about measures of metabolism. We need to know more about the relationship between the various levels of emotional behavior and the energy functions of the body. Pierre Janet's concepts about the effects of emotion upon reserves of energy and about the effects of energy depletion¹ upon behavior should be investigated carefully. We need

¹ P. Janet, *La Médecine Psychologique* (Paris: Flammarion, 1923), pp. 136-38.

to study the relationship between energy structure and physical growth and to find out whether or not the range of variation in energy output changes during pubescence. We need to know the behavior manifestations that are common among children who are in a given condition with regard to energy output, so that the school people may have a descriptive basis for caution in some situations and for reference of cases to clinics in others.² Much of this research should be carried on with broad samples of public school children.

Personality Needs

Earlier chapters of this report have advanced the hypothesis that every individual has a series of needs which must be met more or less continuously throughout life if he is to mature a wholesome personality and maintain adjustment. Various aspects of these needs seem to become crucial at different ages during growth; and frustration results in compensatory or regressive behavior which warps the personality and lays the basis for over-sensitive affective behavior. Such an hypothesis as this offers the basis for a considerable reorganization of education along more functional and dynamic lines; but educators will not be justified in undertaking much of the implied experimentation until the hypothesis has been tested and its formulation validated or disproved. This is the first research needed under this topic. Groups of children should be observed over a period of years and enough data collected about them to show why they behave as they do. These data should then be analyzed to show: (a) whether the concept of need has genuine validity, (b) at what ages or stages in development the various aspects of needs make their appearance or become dominant or compulsive, and (c) whether these needs tend to occur in configurations and to press with relatively different intensities at different maturity levels. If the needs of children vary in

² John Levy, "A Quantitative Study of the Relationship between Basal Metabolic Rate and Children's Behavior Problems," *American Journal of Orthopsychiatry*, I (April 1931), 298, 310.

qualitative and quantitative ways in the pressures which they exert upon children at different ages, educators certainly need to know this in as much detail as possible in order to vary their aims and practices accordingly.

A second large area of research is concerned with the means of diagnosing the status of the personality needs of a child at a particular time. For each aspect of each need, we should try to discover and record the behavior-symptoms which show satisfaction, partial fulfillment, and frustration. Perhaps we can even go further and develop test techniques for diagnosing the status of these needs, but this must be recognized as a most difficult task because needs probably occur in configurations in which functional interrelationships exist. Our suggestion is that the initial investigations employ case-study techniques of a descriptive sort, quantifying the data only as rapidly as it can be done with assurance of validity. The fantasy-theme tests and other procedures developed by Dr. Murray at the Harvard Psychological Clinic, offer most interesting initial leads in this work.³

Once the fact of personality needs is established and some knowledge of their implications for behavior is achieved, a large amount of educational experimentation is implied immediately. In the first place, the psychological departments of universities and teachers colleges must develop materials and experience situations through which prospective teachers and teachers in service can be sensitized to the existence of these needs and to their influence on behavior and learning. This means a thoroughgoing reorganization of courses in educational psychology and mental hygiene. Concepts of motivation, of the role of emotion, and of the way in which children learn will be changed very greatly.

Experimentation in public schools of different levels will be

³ C. D. Morgan and H. A. Murray, "A Method for Investigating Fantasies," *Archives of Neurology and Psychiatry*, XXXIV (1935), 289-306.

H. A. Murray, "Techniques for a Systematic Investigation of Fantasy," *Journal of Psychology*, III (1937), 115-43.

needed too. These experiments should aim to discover how schools can contribute directly to the satisfaction of the personality needs of pupils. Several possible types of experimentation suggest themselves. They should lead to answers to the following questions:

1. What personal relationships can be fostered in schools which will contribute to the satisfaction of the needs of children with different capacities and different backgrounds?

2. What curricular materials can be developed which will help children learn how to effect the satisfaction of their own needs?

3. Can opportunities be provided for action by children and young people leading directly to the satisfaction of needs?

4. How can schools influence the out-of-school situation in such a way as to foster the satisfaction of children's needs?

Possibly schools have a catalytic function in society which they have never fully realized. If they were really preoccupied with children's needs, they could provide for publicity about these needs and stimulate discussion of the roles of the home, the church, the juvenile court, youth organizations, recreation centers, and many other community agencies which are now acting rather blindly. In fact, experiments involving the active cooperation of schools and other community agencies might well be undertaken. This cooperation might take the form of (a) helping all persons in contact with children of different ages to understand the configurations of need likely to be found; (b) jointly endeavoring to set up situations in which children would be able to work out the satisfaction of their own needs. The work of groups like those cooperating in Madison, New Jersey, offers suggestive leads.

Schools may not be primarily responsible for the present failure of communities and homes to meet children's needs, but they are the agencies which society has set up for influencing and guiding the development of children and youth. Accordingly, they are expected to provide leadership in bringing parents and the public to the realization that "problem children,"

juvenile delinquency, and physical ill health are the fruits of unsatisfied needs. The most effective procedure for doing this is not by alarmist speeches or publications, but by careful co-operative experimentation, attempting to set up situations in which needs actually can be met and invoking the cooperation of parents and community agencies in working out the details.

Patterns of Affective Behavior

The patterns of affective behavior shown by children are certainly as important as their number knowledge, eye-movement habits, and language skills; yet they are widely ignored by school people. Tantrums, daydreaming, fighting, shyness, teasing and bullying, bidding for the attention and approbation of the teacher, masturbation, impertinence, and a host of other ways of behaving are the patterns by which pupils try to relieve tensions or work out their personality needs. To recognize these behavior patterns for what they are, to understand their causes, to know the manner in which they were learned, to find more mature ways of behaving appropriate to the particular child and to evoke that mature behavior—these are not easy tasks for school people.

The basic orientation of teachers and administrators in the past has been toward the teaching of supposedly essential knowledge and skill. The curriculum has been the focus of interest. But the correct evaluation of emotional behavior and the re-education of children showing unacceptable or inappropriate patterns of emotional behavior is a personnel task and not a matter of the curriculum. In the past, unacceptable behavior has been regarded chiefly as a hindrance to the accomplishment of the important goals of the school, the completion of curricular tasks. Now, inappropriate behavior must be taken as setting up or defining one of the major objectives of education—the re-education of particular children away from specific unacceptable behavior and toward effective behavior patterns through which they can realize their personality needs. Inescapably, this implies that school people must

become personnel workers in their primary orientation, and teachers of specific knowledges and skills only secondarily. Given proper motivation and the correct orientation of desires, children will learn what they need to know rather easily. Setting the stage to secure this motivation and this orientation of desires is the really difficult task, and it is primarily personnel work.

The concepts set forth above demand extensive experimentation in the re-education of educational workers now in service and in the development of new procedures for the initial training of future personnel. Many prejudices and popular misconceptions must be overcome, yet the experimenters dare not be too doctrinaire. Most safely, the necessary experimentation can be undertaken jointly by psychiatrists, psychiatric social workers or psychologists, and the educational authorities, or by the whole personnel of "teacher training" institutions. This experimentation should bring teachers and prospective teachers into practical contact with problem children, cause the teacher to participate in the study of the behavior of these children, offer the teacher practice in an unemotional and tolerant attitude toward the disturbing situations that arise, and give the teacher an opportunity to participate in devising and carrying out re-educative experiences for the children. This may not be as difficult a task as it at first appears, if principals, supervisors, and the personnel of teacher training institutions are the first to serve such an apprenticeship. *Insights* are sought, not a bag of tricks, not the capacity to diagnose obscure pathology, and not skill in psychoanalysis. To recognize danger signs, to give sympathetic understanding to a child, to be able to make hygienic suggestions of superior behavior, to know when to recommend to a clinic, these are desired in teachers to make them effective personnel workers. Of course, a little knowledge is a dangerous thing and considerable experimentation, including follow-up, is necessary before we dare recommend a specific procedure for the general re-education of teachers in mental hygiene.

Just as the quality of the material nourishment received by a child during his early years goes far in determining the quality of the anatomical structures he matures, so the qualities of the experiences a child goes through in his early life influence greatly the personality traits and structures which crystallize. Just as an important task of the schools is to discover dental caries, rickets, and other outcomes of faulty nourishment, so they also have the obligation to evaluate the wholesomeness of the patterns of emotional behavior shown by children. But the task is a more complex and difficult one than merely forcing the child to give up one mode of behaving and to adopt another. Much of his inappropriate behavior is motivated by early emotional experiences which he has now forgotten but which continue to condition his reactions. Merely to force a modification of the pattern of behavior seldom solves the problem; new outlets for the pent-up emotion are found and new behavior anomalies appear. What is needed is a recognition of the personality needs which are blocked, the staging of situations where the needs can be met, and the nurture of patterns of behavior which are appropriate to the normal satisfaction of the frustrated needs.

This fact, that children often come to school with frustrated needs and unwholesome emotional conditionings, implies a large amount of highly technical research. As rapidly as test techniques and diagnostic procedures are developed for evaluating the status of personality needs in children, these procedures should be applied experimentally to children in their early years in schools. All interpretations should be made by experts and the effort made to understand unacceptable behavior in terms of what the child is striving for. The experimental emotional re-education of these children should then aim not only at the elimination of unwholesome behavior but at the perfecting of patterns of action which can be effective in meeting the child's needs. The periodic rechecking of the wholesomeness of emotional behavior must be a part of the educational policy of schools of all grades. In this connection, it is

particularly important that the educational personnel shall acquire the insights necessary to make them distinguish between problems that can be handled successfully in the school and those which must be referred immediately to clinics.

Attitudes and Value Concepts

Attitudes and value concepts have been shown to play extremely important roles in life. They partially define the areas of emotionality in each of us; they give direction to the behavior by which we attempt to work out our personality needs. Some of these attitudes are generalizations based upon accumulated experience; others show the effects of vivid emotional conditioning. When we measure attitudes, then, we are evaluating the influence of the child's experiences on him up to the present moment. We are seeing what life has meant to him, what he thinks he should strive for, and what he believes to be the best procedures for arriving at his goals. Surely it is important for educators to know this about their pupils! By the same token, the measurement of attitudes is needed as children progress through school, in order to know the effects of their school years and to find out the sort of an adult that is being formed. From this we infer the desirability of encouraging and expanding research devoted to the measurement of attitudes and value concepts.

Individual attitudes seldom occur in isolation, but are usually embedded in a large matrix of other attitudes relating to the various personality needs. The bases of internal conflicts, of frustrations, of rationalizations, of inappropriate attempts to meet personality needs can be understood only when the cross-relationships of these attitudes and their various affective loadings are deciphered and charted. Psychoanalysis already has given us helpful insights, but this technique of studying the interrelationships of emotionalized attitudes is very time-consuming, and the interpretations are sometimes hard to grasp because they always employ the operational concepts peculiar to a particular school of psychoanalysis. When attitude tests

appropriate to various age levels and covering all the significant areas of personality need have been developed and validated, the study of behavior in relation to configurations of attitudes will be feasible by objective means. This will be most helpful in revealing why children and young people behave differently in various social situations and as members of different groups. The development of these objective methods of investigating mental hygiene problems should not be delayed. On the other hand, they should by no means supersede the more personal and individualized evaluation of children's personalities. For a time at any rate, the two methods should be pursued simultaneously with the same subjects in order to have a basis for validating the objective techniques. Both techniques will prove to be vital aids in the task of shifting the aim of education from that of teaching subject matter to that of providing experiences that are effective in stimulating wholesome personality development. Both will assist school people in understanding the effects of educative activity on behavior.

EDUCATIVENESS OF SCHOOL CURRICULA

The experience combinations and sequences which schools provide for their pupils are called curricula. At various times in the past, thoroughly conscientious persons have organized these curricula according to their best light and after a few years other equally conscientious persons have reorganized them. There is not space available here to discuss the resulting evolution of the curricula of American schools during the past hundred and fifty years; suffice it to say that the experiences which children have met in schools have been different from period to period, revealing changes in the preoccupations of the adult population and in the beliefs of educators. Perhaps it is nearness in time which makes it appear so, but the past quarter century seems to have been marked by a speeding up in the tempo of change in curricula and these changes have all centered around one major problem. Most of these recent changes have been attempts to adapt the schools to in-

dividual differences, to make them meet more adequately the needs of children in a rapidly changing world. Numerous causes underlie this attempt to differentiate educative experiences in order to train more effective persons, and each of the causes has had its characteristic effect upon school materials and methods.

Measurement of Individual Differences

During the latter part of the nineteenth century the psychological laboratories of Germany began to develop exact techniques for the measurement of human characteristics, and psychology, formerly a branch of philosophy, became a science in its own right. These methods were brought to America by a group of brilliant scholars who not only kept abreast of continental developments but made numerous contributions of their own to the measurement of human capacities and behavior. The extent and nature of the variations in human beings became apparent and have been described with increasing accuracy during each passing decade. Hard upon the development of exact scientific methods by the Germans came the contribution of a Frenchman, Binet, who devised the now famous test of "general intelligence." This, too, was quickly brought to America where it was translated and used at Vineland, New Jersey, by Goddard and modified and restandardized in 1916 by Terman at Stanford University. Then came the entrance of the United States into the World War and the ensuing need to differentiate rapidly the abilities and usefulness of the millions of men drafted into the army—group tests of intelligence were produced by psychologists to meet this need.

Very quickly group tests of intelligence adapted to the measurement of children of different ages came into being and educators were provided with the instruments and the data which gave rise to such practices as "ability grouping," "educational guidance," and the "differentiation of curricula on the basis of ability differences." Unfortunately, the practical result of the possession of accurate instruments for measuring

single aspects of human capacity and human variation has resulted in an atomic view of human nature on the part of educators. They have been led to make decisions about individual children on the basis of exact knowledge about one or a few aspects of their ability rather than on the basis of a view of the whole personality functioning as a unit in a particular environment. Furthermore, it can readily be understood that exact knowledge about the capacity of a child to learn reveals nothing or little about what it is desirable for him to learn. After the decision to differentiate curricula, because children have different capacities to learn, must come the equally momentous decision as to what experiences are needed by children with these varying capacities. This question has not been answered satisfactorily up to the present time; its answer can only come after extensive experimentation which recognizes each individual as a dynamic functional unity rather than considering him a machine with parts responding separately to environmental stimuli.

Popular Demand for Education

The latter part of the nineteenth century was marked by the rapid disappearance of the frontier, the quick seizure of all lands and natural resources which promised financial return from their exploitation, and the consequent narrowing of opportunities for individuals. This narrowing of opportunity has continued steadily during the present century with the development of large-scale production and distribution enterprises, the scientific improvement of agriculture, and the perfection of myriads of labor-saving machines. Small entrepreneurs are increasingly insecure, farmers on marginal land have suffered a pitiful decrease in standards of living, and blind alley and routine jobs make up an increasing proportion of the opportunities for work open in industrial and commercial enterprises. Yet, Americans continue to worship success and to measure it largely in terms of wealth and power accumulated.

Casting about for new roads to success, the general popu-

lation noticed the figures, so prevalent a few years ago, about the money value of education. Faced by limited success and limited opportunity the great mass of people vowed to give their children a "better chance" by giving them the "advantages" of a "good education." The spectacular increases in the numbers of young people attending secondary schools and colleges during the past two decades has been the expression of this hope that more education would open the road to success which had been so narrowed by social changes.

In this situation, schools have felt pressures from two directions leading to curricular changes. On the one hand, social and industrial changes have created demands for citizens and workers with different knowledges and skills from those needed half a century or more ago. Another impetus toward curricular changes arises from the growing heterogeneity of the secondary school and college populations. With two-thirds of the children of secondary school age actually in school, a much wider range of abilities, a much broader variety of backgrounds, and a much more diverse set of life aims among the pupils must be taken into consideration in planning curricula.

Reaffirmation of the Value and Rights of the Individual

Periodically, the United States has heard the reaffirmation of the worth of the individual and of the individual's right to self-determination, to freedom to choose. As long as the function of the elementary schools was simply to teach the three R's and that of secondary schools and colleges to prepare a professional élite, the educational institutions of the country derived few important implications from this philosophy. But when the tasks laid upon the schools were increased the academic traditions soon were challenged. President Eliot set up the elective system at Harvard, and John Dewey and others established experimental schools at lower levels. All revolted against traditional subject matter and traditional methods; all affirmed the right of individuals to exercise their own discretion, to follow their own deep interests in choosing the

areas of experience to which they would expose themselves in educational institutions. This right to self-determination was extended even into elementary education, and experimental attempts to give children freedom have characterized some of our most interesting experimental schools at this level.

Increasing Recognition of Interdependence in Society

Especially since the beginning of the recent depression sociological considerations have modified the interpretation of the educational implications of the philosophy of freedom and individual rights. Increasingly, we have recognized that the welfare of individuals depends upon effective collective action, upon the maintenance of enough adaptability in social institutions to take up the slack caused by industrial and economic changes. This means that individuals must accept some limitation of their freedom to act—the welfare of others achieves equal importance with self-interest as a criterion of acceptable behavior. It means that enough people must think alike in our society to enforce these limitations of action upon powerful individuals who may not agree, and to insure the orderly evolution of social institutions and processes for the sake of the general welfare. Because the schools are the social institutions entrusted with a large part of the formal training of the young, this modification of individualist philosophy has profound implications for curricular changes and already educators are feeling their way in the attempt to meet the challenge.

Improvement of Techniques of Measuring Outcomes of Education

An additional stimulus to modification of curricula is found in the relatively recent improvements in the techniques of measuring the outcomes of education. The rapid appearance and perfecting of objective tests of the knowledges, skills, and generalizations which schools are supposed to inculcate in children and young people have led to a general disillusionment of educators. In their own hearts and in their more intimate councils, they are asking continually: "Is this, then, all that we do for the children entrusted to us? Are these results all that remain of our earnest and devoted work?" "Surely,"

they say, "we can find more effective materials and methods for training children!" A readiness to modify educational practices in any manner that can demonstrate genuine improvement in outcome is the natural mood which follows; it is widespread today among the leaders in American education.

Five strong forces leading to curricular changes have been described. Several others could be cited. All rest upon the opinion that many persons who have been through our schools do not behave in ways that are appropriate to our times, in ways that make them effective in a changing world. In spite of the fact that all of these forces leading to curricular changes have had validity, schools have not yet learned how to give children the experiences which they need in order to develop strong character and adjusted personalities. We have not known how to provide for individual differences. When our classrooms in secondary schools were inundated with all the children of all the people, we did not know what was best to do for them. Nor have we known how to prepare children so that each would discover a satisfactory role in life where he would feel his own peculiar personal worth. We have not known how to teach children to participate wisely and effectively in social evolution, and, in trying blindly to do something about each of these necessities, we have not perfected ourselves as much as we thought we had in accomplishing traditional academic objectives.

The Committee on the Relation of Emotion to the Educative Process does not believe that educators need feel ashamed that they have not been able to perfect curricula which will meet all needs. It is inevitable that the groups undertaking curricular revisions should have been preoccupied with one or another of the pressing issues and that the resulting curricula should have shown these biases. No integrating criteria have been set forth in the literature which could maintain balance between the individualistic and the social aims of education, between academic quality and the acceptance of variation in abilities. The committee feels that the present report does suggest criteria that will be of material assistance to curriculum workers,

helping them to equate and balance properly the different aspects of education. When we find curricula that will meet the "integrative needs" of children, they will be balanced curricula. This criterion of what belongs in a curriculum will not permit the following of a fad or of the preoccupation of a particular group. It demands that "reality" be ever in mind. Succeeding paragraphs of this chapter should shed some light on the reasons why many present curricular experiences are not appropriate for children and young people and should suggest directions in which needed experimentation can proceed.

NATURE OF CURRICULAR EXPERIENCES

No recent evaluation of the allotment of school time happens to be at hand, but the one which follows, presented by L. Thomas Hopkins⁴ in 1929, will not distort greatly the practice of a large proportion of our schools. Classifying curricular material into categories based on the "cardinal principles" of education, he gives the following time allotments for elementary schools:

Learning the fundamental processes	55.1	per cent
Citizenship	11.8	"
Use of leisure time	10.0	"
Health	7.1	"
Home membership	1.4	"

No time is allotted to studies leading directly to vocational effectiveness and ethical character is treated only incidentally.

For secondary schools Hopkins shows the following time allotments:

	JUNIOR HIGH SCHOOLS		SENIOR HIGH SCHOOLS	
Learning fundamental processes	37	per cent	18	per cent
Citizenship	18	"	12	"
Health	9.3	"	7.7	"
Home membership	8.4	"		

⁴ L. T. Hopkins, *Curriculum Principles and Practices* (Chicago: Sanborn, 1929) p. 23.

The amount of time devoted to vocational studies and to the use of leisure varies widely from group to group in the school population, while ethical character receives only incidental attention.

Hopkins' tabulations are not reproduced in toto because the figures given above are not presented as accurate representations of the distribution of school time but merely to establish a general fact—that the “mastery of fundamental processes” is the dominant, most conscious purpose of the elementary and junior high schools. School people are preoccupied, almost obsessed, with the desirability of teaching children to read, write, spell, and speak the language accurately and to manipulate figures in the fashion traditionally ordained by arithmetic and algebra. These are largely “skill” or habit subjects and the attempt is made to impart them by direct instruction, drill, and practice without taking into account to any great extent the presence or absence of adequate motivation. The resistance met all too frequently has not led often enough to attempts to find out whether other personality needs are being neglected or frustrated by this great emphasis on acquiring skills; nor has it led often enough to attempts to find other and more effective means of inculcating the necessary skills.

No reasonable person will deny the high desirability of training our children to use language accurately and effectively, to understand quantitative relationships, and to manipulate figures speedily and accurately. But a good deal of evidence exists that these skills can be acquired most easily and rapidly as by-products of other activities and experiences. When children are eager to find out and express something which seems vitally important to their own lives, because it touches one or another of their personality needs, they are quick to acquire the number and language skills that will help them learn and assimilate experience. The work of the elementary schools in Vienna during the period between 1921 and 1929 was impressive in its effectiveness in this matter and no small number of experimental schools in the United States, England, and other countries have demonstrated the same facts.

It appears that by changing the orientation of the experiences of the early years in school to make them contribute more directly to meeting the personality needs of children, we can also accomplish more effectively the training of our pupils in the fundamental skills which now consume such a great amount of time and energy. In the same manner, we can free the secondary schools from the necessity for doing the same job over again, affording time at these higher levels for greatly enriched experience and for more attention to the organization of knowledge into concepts and attitudes.

APPROPRIATENESS OF CURRICULAR EXPERIENCES TO PERSONALITY NEEDS OF CHILDREN

If the concept of personality needs does have genuine validity, then school people will be under the necessity of using a formulation describing these needs as a frame of reference for evaluating the scope of school curricula. Using our own formulation as the basis for a tentative evaluation, we find certain curricular areas that are to be commended highly, others that show little relationship to personality needs and, conversely, several personality needs which are greatly neglected.

Physiological Needs

Starting with physiological needs we find that schools, particularly on the elementary and junior high levels, give children a great many experiences which favor the development of good health habits and some understanding of health needs. Children learn much of value about foods such as milk, vegetables, and fruits; about the need for fresh air, sleep, cleanliness, and care of the teeth; about safety measures against fire and automobiles; about first aid, care of cuts and bruises; and about the role of physicians and nurses. On the other hand, we find that children learn very little to protect them against false advertising and injurious adulteration of food products, cosmetics, dentifrices, and the like. Schools find it very difficult to

include any material whatever about these matters, although false advertising and adulteration have reached proportions which amount almost to a national scandal.

Turning to the role of education in promoting wholesome sexual adjustment, we find an area of almost complete neglect. Of course, at this moment no one is prepared to state just what role education should play in this matter, but it is an area of such widespread maladjustment that there is little excuse for refusal even to think about it. Such experimentation as has utilized direct group instruction casts some doubt upon the acceptability and effectiveness of this technique in our culture. On the other hand, there seems to be little reason why the chief facts about reproduction cannot be imparted scientifically and without emotion in secondary classes in biology, and in earlier grades in connection with the care and breeding of animals. There is also reason for believing that it is inappropriate to try to teach all of the facts at once; this seems to be an area like many others where insights are developed gradually; therefore, specific courses in sex hygiene do not appear desirable.

Perhaps the most wholesome manner in which sexual knowledge can be imparted is by parents, whose relationship of love and protection is such as to shield children from the shock and vulgar connotations often suffered when they receive their first intimations from playmates or older children. Of course, it is well recognized that many parents are not prepared for this task, and it may well be that public schools could be of great assistance to these persons. Through counselors and parent-teacher associations, by maintaining an expert with whom parents could consult, by preparing mimeographed material and lending books and pamphlets, schools could cooperate with parents, make them aware of their responsibilities, and assist them in preparing themselves to answer children's questions in an honest and unemotional manner. Particularly, they could prevent parents from associating fear, disgust, and guilty feelings with the questions, thoughts, and erotic experimentation of their children.

Sex has an important cultural role because the family is the basic unit in our society. It is entirely appropriate for schools to undertake to give children an appreciation of what the structure of our society is and of the part played by the family. Wide questions of the duties of members of families, of the rights and obligations of families in the community, of the meaning of such rituals as betrothal, marriage, and baptism, and of the meaning and importance of conventions and taboos covering relationships between parents and children, between siblings, and between the family and other social institutions could be discussed to the great advantage of young people of secondary school and college age. One suspects that young people are often unconscious of the significance of their acts in cultural terms, and it is probable that to increase their sensitivity to these meanings would increase their sense of responsibility and of personal significance.

Status Needs

Since status needs can be met only by establishing and maintaining certain personal relationships, the curriculum is not the primary factor in determining whether schools frustrate or satisfy these needs in particular children. Personal factors are much more important and will be discussed in detail in the next chapter. Nevertheless, there are two ways in which the curriculum itself is related to status needs.

If the tasks set for a given child by the curriculum are beyond his capacity or maturity to accomplish, the ensuing repeated failure may cause loss of status with other children as well as with teachers. The implication of this truth is that, if a child cannot participate effectively in the formal curricular activities of the group, it is up to the teacher and the supervisor to find activities in which he can function to an advantage in the eyes of the group. It is such a deadly experience to be daily in the company of other children but not able to participate with them in a valued way that the school simply *should not permit this to happen* to any child. A school should stand ready to

modify the curriculum to whatever extent is necessary to insure a child's experiencing a fair balance between success and failure in the eyes of his classmates.

The second curricular consideration is seen when a child is unable to secure acceptance by the class group because of unmannerly or unacceptable behavior on his own part. In such cases the elimination of the unacceptable behavior and the substitution of acceptable patterns of reaction must become specific, conscious, curricular objectives recognized alike by teacher and supervisor. Specific experiences need to be planned and engineered for such children and should be given relatively more importance than immediate skill objectives, such as spelling or arithmetic. So large an amount of business, industrial, and social maladjustment arises from personality clashes that the early development of acceptable patterns of social behavior and particularly of affective behavior must be recognized as an important reason for bringing children together under the somewhat controlled conditions of schoolrooms. This fact is already recognized quite widely and some teachers make great contributions to the later happiness of individual children as they reorient behavior away from selfish, unsocial, and inconsiderate patterns toward courteous, considerate, and social ones. But the unfortunate fact is that teachers get relatively little credit for doing this and are seldom permitted to regard this training as one of the most important of their functions. At present, this must remain a side issue to teaching number skills and the like. This is not as it should be. Training children into effective patterns of behavior which will permit them to achieve acceptance by their fellows and belongings in the successive social groupings into which they will be thrown should be recognized as a genuine curricular objective.

Ego or Integrative Needs

The major functions of formal education are found to pertain to the ego or integrative needs. These needs demand for the individual a rich experience of all the aspects of reality with

which he must deal, assistance in symbolizing these experiences so that relationships and generalizations can be understood, and, finally, the organization of the mental outcomes of experience into a unified well-knit personality woven about and tied together by a set of fundamental life values. The functions of education are to provide these necessary experiences and to give the necessary assistance in the organization of knowledge. Viewed in this manner, much that contemporary schools teach is seen to be directly advantageous and helpful to children as they seek to understand the world and life, and much is seen to be practically worthless—an absurd waste of time despite all the hoary traditions that support it. Nowadays, the amount which one should know in order to be a good citizen in a democracy and a good parent to one's children is so vast that it is not possible to justify the continued inclusion of traditional subjects in the curriculum merely because the illustrious men of the past have studied them. We are justified in discussing this problem because inadequate experience means inappropriate behavior after the individual leaves school and inappropriate behavior means failure, tension, and anxiety all during adult life. Thus, the unrealistic and inadequate experiences provided by the curriculum of contemporary schools are laying the groundwork for later maladjustment.

Overemphasis upon Linguistic Learning

An important reason why schools do not provide children with adequate experiences is because, almost from the beginning of the first grade through the university, verbal symbols are substituted for sensation, perception, observation, and activity with regard to life's events. The situation in this respect is not as bad as it used to be, for increasing numbers of school people are seeing the light, but it is still very bad if one views the country as a whole. Symbolization assuredly is an important ability to foster through education, but symbolization must follow actual experience so that symbols have valid content and clear-cut connotations; symbolization should not

precede or replace experience. To short-circuit the process by introducing symbols at too early an age, too rapidly at appropriate times, or so extensively as to crowd out concrete experience is to confuse the child and to render much of education futile.

This is exactly what is occurring in many American schools today. For example, numbers and the manipulation of numbers are taught to children before they have had anything like enough quantitative experiences to understand the quantitative relationships implied by the symbols; nor are the successive stages of arithmetical teaching strengthened by new and wider quantitative experiences—teaching proceeds from one symbolic numerical relationship to another with little or no realization by children that concrete, material facts are expressed here. This is particularly true of secondary school mathematics and probably accounts for the strong trend toward the elimination of mathematical subjects as compulsory studies in the secondary schools. Because mathematics are taught as symbols from the beginning without concrete re-enforcement by experience, pupils have been confused in the past. They have left school feeling the futility of the study. Now those persons are grown up and their influence is eliminating from the curriculum the study of a most important aspect of reality—quantitative relationships. Here we see the whole affective cycle: the unpleasant emotions produced in mathematics classes by vaguely understood and confusing use of symbols are reacting to eliminate an important experience area from the lives of many children.

The development of “visual aids” to the teaching of science and the social studies has been a notable accomplishment of the past ten or fifteen years. The development of the school journey and of visits to all sorts of industries and places of interest within the community has been equally notable. Both furnish opportunities for rich experience which can be the basis for valid symbolization and should be encouraged greatly. The development of “activity programs” for dealing directly

with materials, for affording social and aesthetic experiences and for permitting purposes and desires to emerge into a program of action is also most hopeful.

But these practical means of giving experience must not be used without discrimination, adopted because everyone else is doing it, accepted as a vogue. It must be understood clearly that the function of schools is to afford experiences to children through which they are to learn useful facts which can be organized into larger significant concepts and made the basis for projecting and evaluating their own behavior. A "project" dealing with something that doesn't matter, that has an appeal only because it is bizarre, is almost as futile as dealing with symbols which the child does not understand.

It is very important that school people ask themselves first: What is it desirable for children of various ages and backgrounds to experience? Then the question arises: How can this experience be made concrete, vivid, and accurate as the child goes through it? Visual aids, visits to farms, factories, and institutions, and activity programs should be developed as rapidly as is feasible, but only as a means for affording experiences that children need. They should not be used as ends in themselves or for the giving of haphazard, unrelated experiences. A good curriculum simply has to be planned in the light of children's developmental needs—it cannot be left to grow like "Topsy."

There is an additional reason why the present overemphasis upon linguistic activities in many schools is a source of tension to children. We have good reason to suppose that intelligence is not a unitary trait but has several or many aspects. It is not improbable that among these are capacities for manipulatory and motor behavior that are very useful to society but which cannot be developed or even understood through verbal statements. Schools need to afford opportunities for the exercise and development of these capacities and for the discovery of the social roles to be inferred from their possession. To condemn children with these capacities to failure and tension by making school work for all primarily a matter of linguistic exercise is

highly regrettable. Another aspect of intelligence is equally important. There are probably individuals who do a great deal of non-linguistic perceiving and thinking. If developed and guided, this might lead to invention or artistic creativeness and afford the individual an entree into significant and satisfying social roles. Since the organism has a primary need to function in ways appropriate to its capacities, the common overemphasis upon linguistic activity and linguistic thinking cannot but result in frustration and the feeling of incomplete experience in individuals who have these other capacities.

We are greatly in need of research into means of discovering the presence of such capacities and of describing them. Then we need experimentation with diversified activities in schools, designed to encourage the fruition of these gifts. Mental testing has already proceeded far enough to justify intensive work in this area and soon we shall be in a position to carry on further occupational analyses which will show the areas of social usefulness of our non-linguistic capacities.

Neglect to Prepare Children for Effective Living

Any curriculum which fails to prepare children adequately for later occupational life is laying the groundwork for failure and consequent maladjustment. While perhaps not yet adequate the vocational training afforded men is certainly greatly superior to that now open to women. The academic road to the professions is open and reasonably effective for both men and women, so is the training for "white-collar" and clerical positions. Training for industrial work no longer requires a great deal of teaching of specific skills; these can usually be acquired on the job within a few weeks or months. Vocational agriculture is being increasingly well taught and training for specialized occupations for women such as beauty culture and hostess work is being expanded rapidly.

Nevertheless, the major occupation of women, home making, is being sadly neglected. To be sure, there are fine departments of domestic arts in many secondary schools and colleges, but

these reach a relatively small number of the women who are to be wives and mothers. The vast majority of American women are faced with undertaking an occupation of extraordinary complexity, requiring for effective service a tremendous amount of specific knowledge and many deep insights. The planning of the family diet, the care of all the material things which make up a home, including clothing, the discriminating purchase of a great variety of things, the maintenance of family health, preparation for motherhood, the early training of children, the development of the social life of the family⁵—all these are the tasks faced at some time during life by nearly all women. Yet for all girls and young women, except those few who take a specialized course now largely lacking in prestige, the curricula offered by schools and colleges are blandly silent about these future tasks and obligations. Formerly, this training was passed on from mother to daughter. This is no longer true. There is little use in railing at the moral aspects of divorce as an evidence of social decay while the institutions established by society do next to nothing to train women, and men, for effective family life; for of course there are aspects of family living for which men are as unprepared as women. There is a place here for a great amount of curricular experimentation, and it is to be hoped, for the sake of the emotional adjustment of a large proportion of the population, that it will not be delayed too long.

Need for Sociological and Psychological Knowledge

The development of an integrated and adjusted personality under contemporary conditions requires the formulation of a great number of concepts about the role of social institutions, and the operation of social processes. Emerging from these concepts must be insights into the roles played by self and others and the adoption of a set of basic values that in turn

⁵ See chapter on "Changing Conditions of Family Life" in *Recent Social Trends in the United States*, report of the President's Research Committee on Social Trends (New York: McGraw-Hill, 1933).

determine the social aims that the individual is willing to support. Vital to practical activities in social institutions, to adjusted participation in social processes, is an understanding of the mental processes and motivation of other persons, skill in getting along with other people, and a mellow toleration of opposition and differences of opinion in others without the weak surrender of one's own opinions.

One of the most heartening trends in recent curricular change has been the substitution of broad "social studies units" in the junior and senior high schools for the old rigid and limited courses in history and geography. The traditional organization of history, geography, sociology, economics, and political science into separate parcels of knowledge to be studied apart from each other was not satisfactory for use in secondary schools. This piecemeal examination of life in the past and present could not give the concepts, insights, and attitudes that would truly orient the individual pupil in social life and in time. Instead, it has been necessary to fuse them into "social studies" where a problem can be examined in all of its aspects and a point of view arrived at through the scientific process of weighing evidence from the widest variety of sources. This trend in education deserves great commendation from persons interested in developing integrated adjusted personalities.

One thing perhaps should be added. Students need the chance to get insight into the motivation and the mental and emotional processes of other persons, of the various racial, religious, and cultural subgroups within our society. As life becomes increasingly collective, our citizens must become increasingly skilled in cooperation and compromise and increasingly tolerant of group variations in patterns of behavior which do not injure the general welfare. The suggestion here is that certain educative experiences designed to further what may be called psychological or mental hygiene concepts might well be added to the curriculum in connection with the social studies. Experimentation along these lines should be accompanied by the most careful recording of the techniques used and by attempts to evalu-

ate the outcomes in terms of immediate attitudes and later in terms of social behavior.

Neglect of Aesthetic Experience

Nearly all of us who had our secondary school training twenty or more years ago sometimes must feel a small stirring of envy when we hear the splendid orchestral or choral performances presented now by some high school musical groups. In the same way many of us who were told to place an apple and a knife on a plate and then to draw the ensemble sometimes must regret that we never had a chance when we see walls covered with the gay, brilliant impressionistic drawings and paintings of our children, the fruit of contemporary art work in secondary schools. Unquestionably, youth has been freed from many of the trammeling traditions of earlier teaching procedures. Nevertheless, there is still a disquieting vagueness in the minds of educational people concerned with aesthetics. The shibboleths of "freedom" and "self-expression" are widely heard, but well-thought-out, clear statements of what the experience and practice of the arts can mean to children and young persons are hard to find. The place of the arts in the curriculum is insecure in times of depression, and the quality of the teachers who present this material shows the widest variation. Such a condition implies the need for very careful experimentation, employing a wide variety of techniques in giving experience and stimulating production. Careful descriptions of the techniques employed and of the outcomes observed or measured should be recorded. Four specific lines of experimentation are suggested here.

The first group of suggested experiments deals with the possible role of the arts in bringing children into the stream of culture and helping them to understand and appreciate different cultural groups and cultural epochs. We should try to give children enough concrete experience of music, poetry, dancing, drama, and the graphic arts to bring them to *feel* the essential features of the culture being studied. To understand earlier

cultures children need to feel as did the people of ancient Egypt, Palestine, Greece, and Rome, to feel with the persons who made religious primitives, with those who became the masters of the Renaissance and of later periods. If we teach art subjects in such a way as to induce feelings, surely our children will understand the stream of history, will sense the on-goingness of civilization as they never can through mere verbal symbols describing those times. If children are given enough experiences to evoke sympathetic appreciation of the Oriental expressions of beauty, of those of primitive peoples, and of those expressing the aspirations of the new social orders that are now springing up in different parts of the world, surely they must feel the tolerance and sympathy that is so necessary in our shrinking and interdependent world. They must accept the validity of the experiences of nations and cultures other than our own and must respect them. Indeed, the aesthetic arts should render the same service of interpretation and crystallization to the point of feeling within our own culture. Here it is not always easy to induct the young persons whose experiences have been deficient or warped into a true appreciation of our own concepts of beauty.

We write that this "surely must be true" because we do not know for sure that it is true. As individuals, some of us have had aesthetic experiences that seemed to make more real to us both earlier and contemporary cultures. These experiences have assisted us in crystallizing our concepts and attitudes, have made us respect others and feel sympathy and toleration for them while finding pleasure in advancing in the stream of our own culture—but we do not know that the aesthetic arts can render the same service to a majority. We need to find out whether they hold this potentiality by carefully planned, observed, and recorded experimentation with different groups of children. If aesthetic experiences can do these things for a large proportion of our children, then there is a great field of effort ahead in gathering, arranging, and experimenting with those materials in numerous places in our curricula. Certainly, the

arts can no longer be taught chiefly as separate and independent subjects, if they can do this work of crystallizing concepts and attitudes. Their use for knitting together the discrete elements in our society and for producing the acceptance of a common body of social ideals will hardly be second even to their value in helping our citizens to understand other nations and to achieve historical perspective.

A second area of experimentation deals with the possible role of the aesthetic arts as vehicles for the expression of personal experience, as a means of achieving an essential personality unity by stating clearly through music, dancing, the drama, or the representative arts that which one cannot put clearly in words but which one feels vividly and honestly. The arts have been prized highly through the ages as vital means of self-expression—a fact that would never be suspected from much of the rigid dogmatic teaching of their techniques. Many schools already are making a beginning in this direction, but the inspired teachers have not been able to write objectively of the methods by which they have assisted children to competence in this free self-expression. Scientific psychologists and educators should be associated with these exceptional teachers and the attempt made to discover and objectify their secrets. Adolescents especially seem to need these opportunities for self-expression as they are seeking to state and verify their life objectives. While they are still too young and inexperienced to take a very active part in adult society, they can find opportunities for significant action with regard to their ideals in the symbolic expression of these ideals. The development of skill in the arts, therefore, would multiply adolescents' opportunities to speak up, to be themselves. One suspects that this would increase greatly their sense of social security and self-value in a period when so many are now left groping and uncertain. To verify this hypothesis would be an important contribution which might awaken educators to some of their most important opportunities.

A third area of experimentation involves the use of aesthetic

expression or experience as a means of catharsis for the relaxation of emotional tensions and as a tonic for restoring or increasing morale, either in individuals or in groups. Admittedly, an emotional catharsis, or draining off, does not solve a problem permanently, does not remove the causes of emotional conflicts, or place a person in the position of surmounting his handicaps. On the other hand, catharsis can prevent the intensifying of emotional reactions to the point where they are detrimental to health or where foolish, unsocial protest behavior emerges. To prevent the individual from making blind mistakes and from suffering further discomfiture because of these mistakes would certainly justify the use of aesthetic activities or experiences as cathartics. In the same way, low morale, because of failure or serious unsurmountable handicaps, can be prevented from adding to the despair of the unfortunate if stimulating aesthetic experiences are available. The stimulation may not eliminate the failure, but it can take much of the sting out of it and thus hearten the individual to greater effort or to accept a change of objective or technique. Alcoholism, prostitution, and debauchery of all kinds have been used from time immemorial by individuals seeking to drain off fear, tension, or anxiety by the cathartic action of a vivid emotional experience. If this same value to morale can be achieved through music, dancing, the drama, or by the symbolic representation of emotion in pictorial arts, schools can raise greatly the cultural level of even the better classes in our society by teaching the necessary techniques to adolescents. It is worth considerable experimental effort; but such experiments should be evaluated carefully by psychiatrists, lest the habit of seeking catharsis periodically replace the conscious effort to face reality and to find genuine solutions for problems even though the solutions are unpleasant.

The final area of research involving the extension of aesthetics in the curriculum is more technical. It concerns the examination of the aesthetic productions of young people in order to gain insights into their emotional conflicts and personality

needs through an understanding of their fantasy life. This has been mentioned earlier⁶ and is rementioned here only to point out that the outcomes of regular curricular activities can have a double value—for their own worth to the child and for what they can show the teacher about the child's personality and needs. Undoubtedly, many aesthetic products of young people and many of their interpretations of the aesthetic productions of others carry themes that are symbolic of underlying emotional conflicts and deprivations. If psychiatrists and psychologists can become skillful in discovering these delicate facts from material produced or reacted to as a part of the regular curricular offerings, they will open the way to a much deeper understanding of pupils on the part of teachers. Experimentation is needed to establish the validity of this technique and to demonstrate how it may be used under normal school conditions.

Need for Assistance in Organizing the Personality

The keystone in the structure of the personality is placed finally for some persons only when they get "a stake in the universe," when cosmic meaning has been read into the significance of their own lives. Of course, many well-educated agnostic adults reject the necessity and even the desirability of trying to find any deep, eternal meaning in human life and seem to get along well enough without it; but others crack, and crack badly, without it. In contrast, many other persons astound us with their endurance of frustration, their toleration for suffering, and their dogged activity toward goals because they have some blind but compelling faith in the meaning of their own lives. Religion has supplied this final supporting keystone of faith to millions; compelling social motives have supplied it to others; and the present generation lauds the drive toward personal significance as it impels some scientists to unbelievable sacrifices in the attempt to wrest the secrets of natural law from the material universe.

The role of faith in maintaining personal integration cannot

⁶ See the articles by Dr. H. A. Murray, cited earlier in this chapter.

be denied successfully even by those who want none of it; therefore, it hardly seems justifiable to discuss the curricula of educational institutions without mentioning the possibility of attempting to help young people crystallize their assumptions and establish their faiths by curricular means. Perhaps the only feasible experiment is that of offering the various churches of the community the opportunity to give religious education on public school time to those who desire it, permitting each parent to designate the preferred religious denomination or to excuse his child from such instruction. Perhaps the study of philosophy and comparative religion might be organized in such fashion that it can be made an elective in the last years of the secondary school—students in secondary schools in Europe find themselves adequate to grapple with this subject. Perhaps the social studies, when they are considering earlier civilizations and other contemporary cultures should give more attention to the basic assumptions about life which were accepted by the populations of those civilizations. Perhaps the junior college years should give especial attention to this topic.

At any rate, we feel it desirable here to call attention to the fact that late adolescence is a period when many young people are wrestling with the problem of the meaning of life, of finding out and crystallizing the basic assumptions which underlie their codes of ethics and are their basis of faith. Therefore, experimental attempts to assist them are in order.

A word of caution must be appended to this discussion. It relates to personnel. Experimentation in public schools in such a vital field cannot be entrusted to incompetent teachers or to bigoted dogmatists, and we must record some doubt about the number of persons available who can be used safely. On the other hand, this does not justify us in continuing to leave the discussion of this important topic to incidental "bull sessions" as in the case at present. In some localities, the Y.M.C.A., the Y.M.H.A., and similar organizations for women and for Catholic youth have worked out very successful techniques for assisting young people in crystallizing their views. The summer

conferences conducted by some denominations and religious groups have uncovered useful procedures, too. But all of these agencies reach an extremely small proportion of our young people and their success suggests that public schools might undertake experimentally to cooperate with other community agencies in increasing such opportunities and extending their usefulness.

APPROPRIATENESS OF CURRICULAR MATERIALS TO THE ABILITIES OF CHILDREN

On a theoretical basis, and equally from testimony by teachers and case workers with problem children, we can infer that in traditional schools children often are confronted with tasks which are out of line with their abilities. When this occurs a continuous tension is set up in the child. This may be because he works very hard to succeed despite his handicap, but without success, or because he rejects the task as a goal and is therefore a misfit and under continuous pressure from the teacher and perhaps from parents too. Culminating these long periods of tension, failure usually comes with its intensification of emotion. Under such conditions, it is no wonder that children dislike school and perhaps learn to rebel against authority in general as unfairly dominative. One or two subjects will be discussed to illustrate existing conditions.

Reading in the First Grade

By and large throughout the country children enter the first grade at the age of six and by and large the chief work of the first grade is to learn to read. We know that it is of doubtful advisability to try to teach a child to learn to read until he has the mental, physical, and social maturity normal to a child of six years and six months.⁷ According to the normal curve of probability a considerable number of children will not reach

⁷ See the many studies of reading readiness referred to in "Better Reading Instruction," *Research Bulletin*, National Education Association, XIII, No. 5 (Nov. 1935); also, Ruth Streitz, "When Should Reading Experience Begin?" *Progressive Education*, XIII (May 1936), 325-32.

this mental level until their chronological age is seven or higher; therefore, it is evident at once that we are asking the almost impossible from this group of children. Furthermore, by asking the average group to undertake this learning during their first year in school—some, of course, will have had the advantage of kindergarten—we are asking most of them to work up to the maximum of their ability at a time when they already are confronted by a tremendous number of adjustments. These adjustments include: learning to get along with other children of many types; learning to get along with a group of parent surrogates in a variety of situations; establishing membership in a new social group; experiencing many situations where affection does not temper requirements; learning to accept and live with one's own peculiarities of appearance, physical handicaps, racial and religious differences in a group which recognizes and calls attention to them as undesirable differences from the group; learning and accepting new group standards of behavior; learning new games and physical skills necessary to maintain status.

When the child inevitably has to wrestle with so many problems of learning and social adjustment by virtue of moving into a new situation it seems little short of criminal to add another task which will tax his abilities to the maximum and add to the tension already present. We can believe that it would be far better to defer the introduction of reading at least until the beginning of the second grade where it would be relatively easy for half the group and not overtaxing for most of the others. Objective evidence exists that this is a wise policy.⁸

The Los Angeles city schools have been studying the placement, success, and failure of children entering the first grade during the past eight or nine years. In the early years of this study from 19 to 21 per cent of the children repeated the grade each year, and this high rate of failure led both to research

⁸ C. Washburne, "Ripeness," *Progressive Education*, XIII (Feb. 1936), 127-28; also Elizabeth L. Woods, and Staff, "A Study of the Entering B1 Children in the Los Angeles City Schools," accepted for publication in the *Journal of Educational Research*, 1936.

into the causes and to experimentation designed to remedy the situation. Investigation of the importance of mental maturity (mental age) as a factor in the failure indicated that a mental age of seventy-six months is essential for entering the work of the regular first grade without undue probability of failure. It was found in 1934-35 that 3,261 children, or 50.9 per cent of all the children entering the first grade, had mental ages of less than seventy-six months, and therefore could not be considered ready for reading. Indeed, when other reasons for not beginning reading were taken into consideration, 61.9 per cent of the children were found not to be ready when they entered the first grade. These facts led to the establishment of a transition grade for children who were not ready and this adjustment operated to such good effect that former transition pupils did better work when they finally entered the B1 grade than children with comparable mental ages had done when they entered without the transition experience. The conclusion reached by Dr. Woods and her staff is that "the fact that normal and above-normal children in many cases must be assigned to Transition B1 in order to avoid failure in the first term of school or in later terms is an indication of the *misallocation* of reading in the elementary curriculum."⁹

Of course, the development of special methods based upon the elaborate study of individuals might make it possible for most children to learn to read in the first grade, but this involves expense and a highly prepared personnel that most schools cannot supply. Even if they could, the tension would still be there and we would be justified in asking whether the earlier development of the skill justifies the dangers to a wholesome affective maturing. Nor can we find much to justify the widely current practice of maintaining reading in the first grade but promoting pupils regardless of their success at it. Children can sense their own failure readily enough and feel its sting. Little but chaos can result in the second and third grades from this policy and the very development of the de-

⁹ Quoted from manuscript copy of study.

sired skill itself is jeopardized by the affective conditionings developed by prematurely confronting children with the fixed task of reading. Additional experiments are badly needed. Some should be similar to those of Washburne. Others should study the emotional effects of the present program. In addition, we need systematic experimentation with enriched activity programs for the first grade in which a much wider variety of experiences is offered and the resulting concept development is evaluated. The work in the elementary schools of Vienna, Austria, during the twenties was very suggestive.¹⁰

The Secondary School Curriculum

It is not in the first grade alone that the question of the appropriateness of school tasks to pupils' abilities must be raised. It is germane throughout the school life of children and particularly in secondary schools where children often are confronted with algebra and foreign languages—to mention only two subjects—when they are not equipped or motivated to learn them in the form in which they are presented. Studies of the development of tension and of the results of rejection of school tasks as personal goals are needed in many such situations.

Group-Norms as Individual Goals

There are other ways than by the traditional organization of the curriculum in which children are confronted with inappropriate tasks. One of the most common is the setting up of a group standard to which all children are expected to conform. This is emphasized both by the usual methods of examining and marking children and by the manner in which perfectly good "standard" subject-matter tests are misused. Under these practices, the bright student feels that he has accomplished enough when he has measured up to the norm. Consequently, he fails to profit from his school experiences to the extent that he should. He is apt to take the "get by" or the "gentleman's grade" standard as a permanent attitude toward his work with

¹⁰ See R. Dottrens, *The New Education in Austria* (New York: Day, 1930).

resulting ill effects in his later business, professional, or industrial life. In contrast, the slow, dull, or underprivileged child is asked to accomplish the impossible or near impossible in subjects from which he could learn much of value to himself were it not for this pressure. His attention is rooted to certain required knowledge or skill which he attempts to achieve at the cost of losing many significant experiences at a less advanced level. Drill and failure must be the dominant school memories of such children. Of course, our better schools show good signs of recognizing these dangers and of seeking to avoid them. The experimentation that is needed would endeavor to differentiate the goals of learning set up for different groups of children on the basis of at least the following variables: quantitative differences in the capacity to learn; qualitative differences in the capacity to learn, that is, different aptitudes; marked differences in experience background between different groups of pupils; differences in physical maturity which probably imply differences in basic interests; differences in social maturity. Of course, it would be splendid if a single variable, such as mental age, were an adequate basis for differentiating curricular goals, but this, unfortunately, is not the case. Therefore, educators face the much more difficult task of making their grade classifications and developing their differentiated goals on the basis of varying configurations of significant factors. Several of the longitudinal studies of growth and development now going on should be used as the bases for initial hypotheses. Using data from these studies, the experimental differentiation of curricula on the basis of both capacity and maturity factors might well be undertaken.

THE MOTIVATION OF SCHOOL TASKS AND CURRICULAR EXPERIENCES

Upon the desire of children to do the things that the school asks them to do depends the pleasantness of their school life. As things are now in many schools, if the children are not interested in the learning or activity suggested, some artificial moti-

vation or pressure is worked up, or the threat of punishment is used to make the required learning less unpleasant than its neglect. It can easily be seen, then, that even though all children are working conscientiously, the prevailing mood is sure to vary from class to class in accordance with the dominant motivation which keeps them at work.

Dependence of Motivation on Personality Needs and on Earlier Experiences

• A child is positively motivated to learn facts or skills, or to act, if he feels that these will contribute to meeting some one or several of his personality needs. This feeling of the desirability of a given line of behavior is based upon earlier experience; therefore in schools there is the necessity for the careful introduction of new material and new activities which have relation to past experiences, particularly to past successes. It must be remembered too that past experiences supply negative motivation, the desire to avoid, if they have involved failure, embarrassment, loss of status, or repression. Also a child will be chary about undertaking a new activity in the presence of other children if he has not attained status with them and is at all doubtful of his success. Motivation, which may be adequate for most of the group, may fail for some of the members of the group, not because they are uninterested or rebellious or uncooperative, but because the work involves the risk of failure to realize some other personality need.

Many schools must be criticized greatly for their failure to build their courses of study out of material showing close relationship to children's experiences and a direct bearing upon their needs. Because of this paucity of natural motivation, these schools have to secure effort from children by what may be termed artificial motivations. Children are led to work for marks, to compete with classmates, to act to win the attention, approbation, or affection of the teacher, to meet parental expectations and justify family pride. In many cases, the home tries to supplement the school motivation with cash, special

privileges, or affection as the reward for a good showing, and with loss of privilege and affection or direct punishment as deterrents from failure to do the work. Under such conditions, it is a marvel and a tribute to the skill of teachers that children do as well at school as we find them doing. On the other hand, it is no wonder that so much work is desultory, careless, and lacking in evidence of self-drive and self-criticism. It is small wonder that so many classrooms show a prevailing mood of tension, restlessness, and desire to escape, to be at significant play with fellows. •

The ideology of our more progressive schools is much more valid with regard to motivation, but it must not be assumed that all the activities of such schools show genuine and important motivation. On the contrary many "projects" are distinctly teacher dominated, and the activity often is group motivated rather than based upon value felt by individual children. A few schools have gone to the absurd extreme of pretending to let children choose all of the activities in which they will engage. Of course, this is unnecessary to secure adequate motivation. The richer experience of the adults concerned with the school can be the basis for elaborating a program that will greatly enrich the experience of children while at the same time it touches earlier experiences, meets their felt needs, and helps them to grow in skill, knowledge, and insight into life. •

Frustration of Curiosity

The spontaneous curiosity of young children has always been noteworthy. They seem to feel the incompleteness of their own experience and are driven thereby to ask all sorts of questions and to undertake all sorts of activities and experiments. Even their play is often the attempt to experience adult reality by fancy or mime. Many people have noticed how rapidly children lose their questioning spirit after they begin school. Perhaps this decrease in curiosity is a normal one, but there is a real possibility that it appears because schools check the normal maturing of concepts, which comes as experiences accumulate.

Indeed, affective factors may play a large role due to the unpleasant feelings aroused by the blocking of so many interests and by the frustration of so much natural inquisitiveness during the early years in school. So many children and even adults seem to feel that schools are all theory, abstraction, and unreality and that life outside is essentially different from life at school that we are led to wonder whether there is some valid basis for this widespread feeling. At least, we cannot deny that many schools do shut children away from their environments during relatively long hours and require of them activities that show a minimum of apparent relationship to their earlier experience. A well-executed study of the frequency of frustration of curiosity and interest in elementary and junior high schools would be very valuable. Comparative studies of the same thing using matched groups of children from "traditional" and "progressive" schools also are illuminating.¹¹

Interference of School Routines with Motivation

We must contend that the more or less rigid daily routines of the school and the limited, formal assignments and discussions of curricular material interfere with normal motivation and break down interest and curiosity. Let any adult who has just completed the reading of an absorbing book imagine what it would have done to his interest to read it at the rate of five or ten pages a day over a period of one or two months, meantime making analyses of plot, language structure, use of words, and the like. We do not contend that there is no place for this latter type of work, but there is certainly also a place for a more spontaneous enjoyment of literature, music, art, and discussion. While this is not an original criticism, it is in need of reiteration as long as traditional practice dominates in so many of our schools. The trouble, of course, arises from the stress laid upon the intellectual aspects of school life to the exclusion or relative neglect of the emotional or affective side of experience.

¹¹ F. Pistor, "A Valid Scientific Appraisal of an Enterprise in Progressive Education," *Journal of Educational Research*, XXVIII (1935), 433-49.

Need for Diagnosis of Motivation of Failures

Failure on the part of a child to profit from his school experience constitutes a mild sort of maladjustment that demands diagnosis and remedial action lest attitudes become warped and a more permanent maladjustment ensue. Intelligence tests, given to find out whether a child's capacity to learn is sufficiently developed to permit him to succeed with the units undertaken, are desirable aids in this diagnosis. Equally valuable are the so-called diagnostic tests in particular subjects, which seek to ferret out the particular aspects of knowledge or skill in which the pupil is deficient. But many children have failed even though they are sufficiently gifted to do the work; and even to know in exactly what aspects of the subjects they have failed may not give the cue to remedial instruction. The child's mind simply may not be permeable to the scholastic material because of other preoccupations that hold his attention. Suppose a boy's parents are quarrelling seriously—this may so jeopardize the status and affection of the home as to leave the boy feeling very insecure. He may spend a great amount of time worrying over the situation and wondering what will happen or what he can do about it. In such a situation, much of the material presented in his classes just does not seem important to him. He is literally impermeable to it under the circumstances. Indeed, personality needs have so many ramifications that the wonder is that their frustration does not more seriously interfere with the work of the school.

The significant implication is that the work of the school must be organized in such a manner as to permit of careful and sympathetic diagnosis of the causes of failure in terms of personality needs as well as in terms of mental deficiency and items of ignorance. Then remedial instruction must be carried on in such a manner as will take care of personality needs which are frustrated, or at least assist the child in adapting to his difficulties. Remedial instruction which tries to push the individual over the academic hurdle whether he is psychologically ready to take it or not may be harmful rather than helpful.

PSYCHOLOGICAL APPROPRIATENESS OF THE
ORGANIZATION OF MATERIAL

If we conceive of education as the affording of experiences to children by which they come to understand the world and themselves and learn to act effectively for the meeting of their own personality needs, then we must see the necessity for keeping these educative experiences tuned to the developmental level of the child. Also, we must see the necessity for planning the sequences of experience in such a way as to provide a continuous stimulus to growth, because meaning is discovered through interrelationships between past experience and present happenings. Finally there must be an ordered relationship between the different experiences provided, lest incompatible concepts and desires be developed and the foundation for mental conflict laid. There is every reason then to investigate the appropriateness of the organization of curricula offered by the various types of schools. This appropriateness of organization, as well as of content, must be evaluated in terms of its relationship to personality needs, its on-goingness, its essential unity, and its effectiveness in affording entree into an understanding of the various aspects of reality. It has already been suggested that inappropriate material will lack motivation and be learned only under duress. It is also true that the faulty organization of good material will fail to afford insight and leave the child dangerously out of touch with reality.

*Dependence of Organization of Material on Verbal Logic
Rather Than Experience Background*

Too many schools rely almost wholly upon the verbal surrogates of experience for teaching essential facts and relationships. As has already been stated, this can never be satisfactory because many words, inadequately backed by experience, are repeated without a genuine knowledge of their implications. These verbally acquired concepts cannot be the basis for valid and effective attitude formation; therefore, education in these schools falls short in its training of insights and attitudes. The

result is the dominance of behavior by attitudes acquired incidentally and accidentally in the home and out in the community. This stress upon linguistic learning also places undue limitations on activity and thereby gives rise to tensions in pupils. Fortunately, some schools do not organize their materials primarily on a linguistic basis in the early years of school. They provide for a much larger range of activities, avoid the tensions arising from inactivity, and give rich experiences by which words acquire much more accurate meanings. A great deal of research is needed to give school people an understanding of the sort of experiences that children of various ages and backgrounds need in order to give valid meaning to the vocabularies of the books and discussions through which they are expected to learn. The time has come to recognize that a certain minimum body of concrete experience must precede learning that is organized around verbal logic.

The unclear meaning of words which are in use daily in the classrooms of the country is itself a frequent source of tension in children. This should be self-evident but perhaps it, too, needs experimental demonstration.

Integration of Material More Desirable Than Piecemeal Learning

Dr. Learned, in contrasting the secondary school curricula of Europe and America, has called our curricula "ropes of sand."¹² He did this because we reckon our educational objectives in terms of a unit of this and a half-unit of that and demand only that these units add up to so many to guarantee graduation. Subjects may be taken for a year and then dropped to be replaced by other subjects studied for a like period. Each year's work in each subject, and sometimes each half-year's work, is organized as a unit quite independent of what has gone before and what is to come after. This contrasts sharply with European secondary school practice where a subject once begun is never dropped and where the examinations of the last two

¹² W. Learned, *The Quality of the Educative Process in Europe and America* (New York: Carnegie Foundation for the Advancement of Teaching, 1927), Bull. No. 20.

years of school cover all material previously studied. We should certainly find much to criticize in European curricula, for they depend very heavily upon verbal logic and limit their aims to intellectual matters to the almost complete neglect of personality needs; but we do have to admit that the integration which these curricula show assures a competence in the intellectual area that our piecemeal curricula cannot match. Furthermore, it is regrettable to have to record that this same lack of integration characterizes most of our elementary curricula as much as it does those of secondary schools.

Fortunately, there is a movement toward the integration of curricular offerings now gaining momentum in America. Some states, by providing for a core curriculum with common themes in a number of subjects and an integrative thread of sequence running throughout the whole elementary school, are undertaking most valuable experimentation.¹³ An examination of the tentative course of study for Virginia elementary schools, to use this state as an illustration, reveals that unity and coherence of experience are sought by the maintenance of themes throughout the educational life of the child. The sequence of experiences provided is supposed to indicate "the direction in which the growth of boys and girls should proceed,"¹⁴ and each unit of work appears naturally and adequately motivated by previous experiences of the pupils. The daily routine is to be kept highly flexible and such records and reports are recommended as will focus the attention of teachers and parents upon attitudes and generalizations as co-important, or more important, than the development of skills and the acquiring of individual items of information. If this program of education can be made practically effective, it should go far toward meeting the ego needs of children by its emphasis upon the organization of knowledge into generalized concepts and attitudes, thus providing for the integration of personality in a way that other rope-of-sand curricula can never do.

¹³ *Tentative Course of Study for Virginia Elementary Schools, Grades I-VII*. Bulletin of State Board of Education, Richmond, Va., 1934.

¹⁴ *Ibid.*, p. 25.

Of course, such curricula cannot be accepted merely on the basis of their organization on paper. They must be validated by experimental studies. This can be done by comparing the measured effects of these newer curricula and of more traditional ones on comparable groups of children. Naturally, the measurement must take into consideration not only acquired knowledge but generalized concepts and attitudes and also the amount of tension in pupils that is attendant upon going through the educative experiences. If children exposed to the newer curricula show a lower incidence and strength of tension, a superior organization of knowledge and deeper insights than those taking more traditional curricula, then the laurels must go to the schools with carefully integrated curricula. It is hoped that comparative studies of this sort, which will not neglect to measure the incidence of tension along with intellectual outcomes, may be undertaken in the near future.

A subtopic under this same problem deals with the question of the optimum content and range of a "unit of work" in schools using this organization of subject matter. At present, these units of work are organized and their range and content determined largely by adults working sympathetically with children. This is probably as it should be and yet one often suspects that specific units correspond very poorly with what may be termed the "units of understanding" natural to children of a given maturity-level or a given social background. When this is true one would expect a temporary loss of motivation in the children and an increase in tension as they are pressed to complete the unit or project. Teachers need to be sensitized to this possibility; the units in a given course of study need to be kept flexible from community to community, and adaptations to peculiarities in the composition of particular classes need to be made. To a certain extent, this is happening now, but this is true only among the better teachers—a few experimental studies of the incidence of tension in the classes of teachers who do not or are not permitted to adapt units of study would illuminate this problem greatly.

ADMINISTRATIVE CONSIDERATIONS AND CONDITIONS UNDER
WHICH SCHOOLS MUST BE OPERATED

The mere fact of the size of many schools, together with the common semi-military organization of the hierarchy of educational workers, has a profound influence upon the effects of the impact of the schools on the personalities of children. Many of the immediate goals of education and much of the organization of subject matter spring from the necessity for handling a considerable number of children with promptness and smoothness both in the classroom and around the buildings and playgrounds. Very often, this has given rise to rigid regimentation and, even where this is not true, one finds many arbitrary rules and some fear of authority. Large numbers are a strong reason why accomplishment is so often measured in normative terms against group standards rather than against the abilities and needs of the individual pupil. It explains why mass instruction focuses upon subject-matter goals to the neglect of personality needs. It accounts in some measure for the assignment of logical units within a subject as the basis for study rather than "units of understanding" which might cut across the boundaries of several subjects. It explains why essentially incompatible personalities are so frequently found in the same classroom, whether the tension be between a pupil and the teacher or between pupils. A number of topics will be discussed under this heading because of their importance in producing tension in children, or because of their influence in a negative way upon the personality integration of children.

Regimentation

Regimentation may have a number of unwholesome effects upon the children—take the rigid rules and penalties often enforced for tardiness and absence as an example. No small number of children are tardy, not because of their own lagging but because of laxity in their homes. Breakfast may be late, they may have to wait for clothing to be mended or buttons to be sewed on, they may have unexpected errands to run, or illness

in the home may have disorganized the routine. Parents may forget or not trouble to send explanatory notes. What reaction to authority is likely on the part of a child who finds himself punished or at least in trouble over tardiness from such causes? It is not unnatural if he feels unfairly treated, that authority is arbitrary, or that a lie which gives promise of escape from punishment is preferable to truth which shows his home in an unfavorable light. The problem of handling large numbers of children in an orderly way is admittedly a difficult one, but too often the problem is met by arbitrary rulings without regard for the emotional consequences in children. Such situations are the stuff out of which attitudes and "character traits" grow and the easiest, most efficient methods may not be the most educative in the good sense. For example, it is known that regular attendance is stressed so greatly in some schools that children do not admit being ill and attend when they really should be kept at home. This may spread infection and have most unsocial results.

Inflexible Time Schedules

The fact that the rigid time schedule is a frequent source of irritation and frustration of interest in school has been mentioned already. This rigidity of time allotment appears to be unfortunate, both because it interrupts highly motivated activity and produces a mood unfavorable to attention to the next class and also because it often forces pupils to remain at a given task or study when a change of activity is desirable. Change of activity is desirable when fatigue has caused the development of tension; it is equally necessary when failure produces mental confusion, and in cases where lack of experience or skill causes failure to master a concept or to produce a given piece of work. Since neither the duration of interest nor the moment when a significant proportion of the class will show fatigue or meet failure can be foretold with accuracy, educators should watch with great interest such experiments as involve the use of flexible time schedules. The problem involved is very

largely one of emotion, in which the value of the habit training involved in sticking to a distasteful task or in giving up an interesting activity for the general social good must be balanced against the depressing or disorganizing influences of the emotions generated. This is another area in which speculation should be silenced by objective studies of the incidence and strength of emotions found in actual classrooms.

Disciplinary Considerations

Consider the situations which most often provoke tension between teachers and pupils. "Disorder" in the halls, noise in the classroom, talking on the steps, marking up the walls of the toilet rooms, "wise cracks" muttered to a neighbor, pushing or punching a companion, inattention in the classroom, and a thousand similar trivialities are continually bringing children and teacher into antagonism with each other. Most of these actions spring from lack of activity or from lack of freedom to direct one's own behavior. Many times, other pupils regard a boy who creates a disturbance as smart because they have a fellow feeling with him against arbitrary rules or against boredom. He would lose status were he to interfere with an activity in which all are eager to engage. Furthermore, nothing could be more incompatible with self-discipline in children, with the development of self-control and initiative, than to make each teacher a policeman by investing him with the responsibility for maintaining an artificial and repressive regime of "order." The implications of these facts should be weighed by administrators when they are developing the rules under which their schools are to be operated and are working out curricular offerings.

Problem of Children with Special Disabilities

Children with special disabilities such as speech defects, lameness, poor vision or hearing, mental dullness, or physical weakness often are made conspicuous by regimentation and other administrative procedures. Too often, arrangements are

such that they have to receive special treatment which makes them appear inferior in the eyes of their classmates. It is hard enough to make provision for them in free and easy, natural classrooms, but when there are formal seatings, formal recitations, formal drills, and a rigid routine, the adjustment becomes doubly difficult for them. The least that can happen to them is that they will be neglected, that the school will fail to be realistic in adapting its materials and methods to their needs. On the other hand, unless particular care is taken when special classes are provided, additional adjustment problems may be added, due to loss of social status, and increased tension in the family. However, by far the larger number of children with special disabilities are now in regular classrooms, daily to be tormented by their sense of differentness or inferiority in the multiplicity of situations in which they are not able to fit easily into the regimented routine.

Homogeneous Grouping

The paragraph above brings us naturally to a discussion of the policy of homogeneous grouping. When intelligence tests had been shown to have a fair degree of validity as measurements of probable success in school, they were at once seized upon as providing an educational panacea by making possible the homogeneous grouping of children according to ability. The thought was that this grouping would make possible the adaptation of curricular materials to the capacities of the children and eliminate a great deal of failure and retardation.

The practice, however, turned out to be that the less able groups were asked merely to do somewhat less of the same sort of work as they had been doing before. In their turn the gifted were given additional tasks in the various standard subjects, enjoying relatively little enrichment through the addition of more diverse experiences and activities. Of course, the experiments were not very successful, for if individual differences imply anything they imply the need for qualitative content differentiation between curricula as much as they imply differ-

entiating the amount to be learned. Furthermore, it was absurd to suppose that satisfactory classifications of children could be arrived at on the basis of the measurement of only one growth variable, namely, intelligence.

At present, school administrators rapidly are taking up another fad—the elimination of retardation. This is accomplished by admitting children to school on the basis of chronological age alone and of promoting them annually to the next higher grade almost without regard to mastery of skills or absorption of information. This is probably a step in the right direction, inasmuch as it recognizes the desirability of keeping children with their social peers and admits that it is no matter of academic life and death whether a child learns to read in the first grade or the third. On the other hand, promotion on the basis of chronological age has not been accompanied by administrative policies which produce markedly greater flexibility in curricular offerings or insure the adaptation of school experiences to individual differences. The result all too frequently is that teachers and pupils alike are confused about what they are expected to accomplish during a given year; the evaluation of progress rests upon no clearly stated criteria; marks mean practically nothing; and shabby work by inefficient, incompetent, or insincere teachers may escape unnoticed.

Unfortunately, this very easy—and economical—panacea for our educational ills actually cures nothing. Children still differ from each other in ways which demand some differentiation in their treatment; the question of what educative experiences are appropriate for children of different capacities, temperaments, maturity levels, and cultural backgrounds remains unanswered. Children are still entering and progressing through school, and they are thrown together arbitrarily in conglomerate social groupings where they face tremendous problems in establishing belonging, in winning personal friends, in adopting criteria for measuring their personal effectiveness and success, and in acquiring social insights and skill. They find additional problems in getting along with others, in resisting or accepting social

pressures to conform to group ideals and patterns of honesty, in seeking pleasure, in learning ways of meeting authority, and in adapting themselves to relationships with the opposite sex. Numerous other adjustment problems which affect markedly the morale of the group and the personality adjustment and development of the individual could be mentioned, but it is enough to note that the problem of grouping children for the purpose of more conveniently giving them educative experiences is far from solved and probably cannot be solved by using a single variable such as mental age or chronological age as the basis for classification.

Meantime, knowledge about the extent and nature of individual differences, and about the causes of these differences, is accumulating steadily. For example, we know that girls mature at a more rapid rate than boys so that on the average they are something like six months ahead of the boys when they enter the first grade, and this differential is increased steadily until they average a year ahead during the junior high school. A parity in physiological maturity is not reached by the boys until the last years of the senior high school. Despite the fact that intelligence tests generally have been standardized in such a manner as to eliminate the appearance of sex differences, there is other practical evidence that girls also surpass boys in rate of intellectual growth in a fashion which roughly parallels their physiological maturity. We know, too, that interests, social preoccupations and attitudes, and problems of personality maturing shift in ways that show significant correlation with physiological maturing.

When we find two-thirds of the girls in the junior high school to be matured in sexual functions while two-thirds of the boys associated with them are immature in this respect, we know that we are putting together two groups which show, in the mass, basically different orientations toward life. The problem is complicated still further by differential rates of maturing within each sex. If one looks at a group of pictures, taken in the nude, of boys of the same age who are now classified to-

gether in the eighth grade, one sees some who are essentially men and others who are clearly children. In body proportions, in facial configurations, in genital development, and in the growth and distribution of pubic hair some fourteen-year-olds look like average high school graduates while others look like average fifth or sixth graders, being devoid of pubic hair, showing very undeveloped genitals, and having faces and bodies which show that they must continue to grow for some years before they reach full maturity. For these two groups of boys to be given identical educative experiences, identical responsibilities, and identical social and extra-curricular opportunities is manifestly inappropriate even though they exhibit the same ability to learn at the moment. Certain basic personality preoccupations are bound to be quite different and the traditional school organization and curriculum is bound to handicap one or the other group with severe tensions.

Numerous experimental changes in school practice suggest themselves. If all children are to continue to enter school at the age of six, most of the boys and a few of the less matured girls might be given a richly diversified activity program with no formal instruction in reading and symbolic number manipulation during their first year in school. Most of the six-year-old girls might join the seven-year-old boys in class where these basic academic skills are taught and might then progress through the remainder of their school life in the company of these boys one year older than themselves. While the girls would still average greater physiological maturity in the junior high school, the differential would be greatly reduced and a much larger proportion of the boys would be ready at that period to meet the changing orientation of interests and outlook that comes with the advent of pubescence. Further differential classifications on the basis of measurements of a variety of abilities, interests, and maturity factors might be introduced at various points in the educational system, notably upon entrance into the junior high school and during the three years of the senior high school. Probably these experimental classifi-

cations should take into consideration mental age, physiological maturity, social background, special aptitudes or handicaps, and the condition of individuals with regard to their basic personality needs, such as energy, health, social acceptability and insights, mastery of basic learning tools, breadth of knowledge, and attitudes toward life.

The major problems of curriculum construction remain as unsolved challenges to administrators. These problems simply cannot be met by organizational jugglings. They demand that educators discover and demonstrate the experiences through which children need to pass in order to give knowledge, to stimulate the development of skills, and to insure the evolution of attitudes and concepts appropriate to our complex contemporary realities. Mental hygiene considerations show that it is necessary to reorient and revamp the subject matter of these educative experiences and suggest that administrative and organizational changes should grow out of the new curriculum rather than precede it.

The Teacher's Load

Little has been said up to this point of the effects of the moods of the teacher upon the emotional atmosphere of the schoolroom and upon her relationship with individual pupils. It must be mentioned here in connection with the organizational factor of "teaching load." We have no adequate studies of the relation of teaching load to the moods, emotional poise, health, and effectiveness of teachers—such studies are needed badly. Fatigue and tension in teachers must be related directly to the number of pupils with whom the teacher must deal, to the number of periods a day that she teaches, to the fullness of her acquaintance with the material touched in her work, to the sort of "discipline" that she is required to maintain, to the adequacy of the information available about the pupils, and to the personnel relationships maintained with her by supervisors and principal. These are largely organizational factors which make up the "load" which the teacher must carry. A very in-

telligent discussion of this problem is found in the Fifteenth Yearbook of the Department of Elementary School Principals¹⁵ in which stress is laid upon the need for studies of teachers' "loads" that will take affective factors into account. This report seconds Dr. Almack's plea.

¹⁵ John C. Almack, "The Teacher's Load as a Factor in Physical and Mental Hygiene," in *Personality Adjustment of the Elementary School Child* (Washington: National Education Association, 1936), pp. 368-72.

XI

PERSONNEL PROBLEMS IN EDUCATION

A SIGNIFICANT PROPORTION of the country's teachers either are mentally ill or suffer from serious mental and emotional maladjustments! This is the sense of startling statements about the mental health of public school teachers which have appeared in print sporadically, yet persistently, during the past several years. If this be true, it is a serious matter, for few parents could think comfortably of placing their children in daily contact with persons who are mentally ill or who are approaching that state. Even if we regard the alarmist statements as gross and unfair exaggerations, they still give us cause for thought. The wide occurrence of marked anxiety, frustration, or fear among teachers certainly would influence adversely the educational effectiveness of schools. It would color the personal relations of these teachers with pupils, with each other, with parents, and with the administrative personnel. It might easily be taken as an indication of widespread mental illness and, in fact, would be an indication of genuinely unhygienic conditions in the profession.

Of course, this report is far from subscribing to the opinion that all teachers who have unsolved personal problems are serious menaces to the mental health of children. Everything depends upon the extent to which the teacher is showing emotional poise and realistic insights in meeting her difficulties; some troubled teachers may possess most wholesome understandings and may develop exceptional capacities for handling problem children. Nevertheless, the mental health of the personnel of public schools must be the serious concern of all persons who are deeply interested in education, and in the light of recurring doubts about the wholesomeness of the influence of

many teachers, an area in pressing need of scientific study is indicated here.

Such studies as may be undertaken should survey the incidence of neurotic behavior and strong tension in teachers as well as indicate the extent of serious maladjustments. They should inquire whether the conditions under which teachers work contribute importantly to the appearance and persistence of anxiety, fears, and tensions in the personnel. They should attempt to discover whether selective forces operate to bring potentially maladjusted persons into the profession. They should evaluate the effectiveness of teachers colleges in discovering and either eliminating or re-educating these potential neurotics and misfits. Finally, they should study the influence of neurotic and disturbed teachers upon the pupils in their charge. The reports should attempt to make constructive suggestions, designed to increase the mental hygiene of the profession.

DOES THE PROFESSION SATISFY THE PERSONALITY NEEDS OF TEACHERS?

As soon as is feasible a study should be launched which will attempt to discover whether the profession offers adequate opportunities for the satisfaction of the basic personality needs of the teaching personnel. The scope of such a study is indicated by the following subsidiary questions, which must be raised:

1. Are the demands of the profession overly fatiguing?
2. Do teachers make adequate provision for rest and sleep?
3. Does the profession allow for normal biological functioning by encouraging marriage?
4. Are there adequate opportunities for recreation open to members of the profession?
5. Are teachers normally in the situation of receiving and giving affection?
6. Do teachers have opportunity and freedom to achieve belonging in the various social groupings adapted to their interests and abilities?

7. Are teachers marked or stamped as "different" by their professional life?

8. Do teachers enjoy financial and occupational security and freedom from worry?

9. Do teachers have the opportunity for a full, rich experience of life, adequate to bring them to realistic thinking and evaluating?

10. Do teachers have the freedom to exercise initiative and creative thinking in their profession to the point that they have a sense of personal worth based on the recognized value of the social roles they are playing?

If a careful study shows that any or several of these questions often must be answered in a manner indicating frustration, then public authorities, parent groups, and professional associations must concern themselves actively with the reform of unwholesome conditions and the modification of professional practices. The present report will not attempt to give definite answers to any of these questions but will try to present enough facts to indicate why they seem to be important in relation to the mental hygiene of teachers.

Frustration of Personality Needs by Conditions of Employment

A representative of the National Committee on Mental Hygiene used to give a lecture which he called "Teachers Are Also People." Apparently, he felt that many persons do not recognize that teachers are just human beings with the same needs and aspirations as other people—and indeed he was right. It is common knowledge that many young persons, if they are ever to find employment as teachers, must sign contracts which force them to accept conditions that deny them normal human rights. Common policies regarding the marriage of teachers supply a case in point.

The elementary school teachers of the country are recruited largely from among the recent graduates of state teachers colleges and normal schools. They are predominately young women, between the ages of nineteen and twenty-three when

they enter the profession. This is exactly the period when, in our culture, they normally may be expected to be preoccupied with choosing a mate. Consider, then, the effect of a contract which forces them to agree not to go out in the company of young men except on Friday or Saturday evenings, to refrain from dancing, playing cards, and smoking, and to maintain at all times a high degree of dignity. Such contracts actually were signed by young women in 1936!

But such ridiculous infringements upon personal liberty by formal contract are relatively rare in comparison with the prevalence of equally coercive repressive attitudes in the minds of school-board members and "influential citizens." In community after community throughout the country this repressive "public opinion" narrows the activities permitted to teachers until they find it very difficult to make themselves sufficiently interesting and attractive to hold desirable young men. But even when young teachers capture the love of eligible young men, they are not permitted to marry in a great many communities. Some school boards do not dare put this provision in teachers' contracts but never reappoint a teacher who marries; others frankly write it into the contract with immediate dismissal as the penalty for marriage. By this conscious policy, thousands of young teachers are condemned for as long as they remain in the profession either to the frustration of normal love or to dangerous and illicit extra-marital attachments. Certainly, this is not a healthy situation for the teachers who are in it, and the natural result is to drive the most capable, attractive, and poised personalities out of the profession permanently. Fortunately, a significant number of communities have faced this problem and permit their teachers to marry and retain their jobs. These communities are by no means the majority, however, and the liberal trend was reversed during the depression.

The net result is that our schools are manned in the main by very young, relatively inexperienced women who have not yet chosen a mate, by spinsters who could not achieve a normal love life, by women whose homes have been broken by death

or divorce, and by a very few mature, fully experienced teachers. The school thus becomes essentially an institution, dominated at least in personnel relationships by a feminine point of view but not by the point of view of women who have achieved full emotional maturity.

Of course, a conditioning statement is immediately in order. There are many young women of high ideals and entirely normal perspective in our schools—most of them will marry and leave the profession within seven years of entering it. There are many spinsters who have accomplished an admirable sublimation of their normal impulses, whose pupils are surrogates for their own unborn children but whose affection and emotional reactions to the pupils are entirely healthy and normal; there are many widows and divorcees who have assimilated their experiences and bring enriched understanding to their classrooms. But these fine teachers are fine teachers in spite of the professional system in which they work and not because of it. The total picture does not appear either normal or healthy with regard to the biological needs of the personnel.

A comprehensive and searching study should be undertaken in this area as soon as is feasible. Sociologists and psychiatrists should cooperate in finding out how widespread these repressive policies are, what the effects are upon the teachers working under these conditions, how these effects reverberate in the classroom, and whether these policies have an undesirable effect upon the selection of persons to remain permanently in the profession.

Enjoyment of Adequate Recreation

Recreation is both a form of rest and a way to the release of tensions. Teaching inevitably develops tensions—and therefore teachers need recreation if they are to keep good-tempered and poised. But have they the time, the money, and the opportunity for adequate recreation? When one remembers the necessity for lesson planning, for marking and correcting papers, for scoring tests, for participating in the development of new

curricula, for sponsoring clubs and extra-curricula activities, for taking "professional improvement courses" or working for advanced degrees, for attending lectures, public meetings and the like, for participating in various community activities and in church work, one wonders when a teacher has time to cultivate a hobby, to read for pleasure, to visit and entertain friends, to fish, play games, or just loaf. Whether teachers have adequate money to fulfill their recreational needs after other demands are met, whether the great number of them boarding in homes around the communities have adequate facilities for entertaining, whether the public position held by teachers shuts them away from many recreational activities common to other persons of their communities, whether the problem of establishing new social belongings unduly delays recreational opportunities, whether the recreational tastes of refined teachers are out of touch with those of most available friends in some communities—these and other relevant questions are in need of answers. It would be very desirable to make a number of surveys of the recreational life of teachers in various parts of the country. The public should know whether teachers actually have the strength, time, money, and freedom necessary to enjoy enough real recreation to keep them emotionally healthy.

Occupational Insecurity

The question of occupational security has a direct bearing upon the mental health of teachers, because upon occupational security depend so many opportunities for the activity and status essential in a normal life. It is a well-known fact that political and social favoritism frequently influence boards of education both in the initial appointment and in the promotion of teachers. It is also known that a considerable number of recent appointees to teaching positions have had to pay a certain proportion of their first year's salary to the superintendent, to school-board members, or to politicians. In many communities tenure laws are evaded by discharging all teachers about to enter tenure, employing new teachers in their places, and forc-

ing the former ones to move elsewhere. In other communities teachers about to go on tenure are forced to resign, thus forfeiting their tenure rights. After several months of idleness, these teachers may be re-employed in the same system—but they remain without job-security. Some communities hire new teachers only as substitutes, thus avoiding both tenure and salary regulations. In the face of these facts, any capable young person should think twice before entering upon teaching as a profession, because at present it appears to be far from satisfactory to thousands in the matter of offering occupational security.

Responsible national agencies should undertake careful studies of the extent of these practices and the number of teachers affected. These studies should involve the employment of psychologists and psychiatrists to evaluate the influence of the attendant feelings of insecurity upon the classroom behavior of teachers and upon their mental health. One feels sure that the politicians, school-board members, and superintendents who are responsible for these practices do not realize that they are infecting their teachers with fears and anxieties which render the latter unwholesome influences upon the children of the community. The personality reverberations of the ensuing emotions simply are not appreciated, and the economy motive makes these practices seem momentarily desirable. Careful studies which do not rest upon prejudgments and, on the other hand, which can state facts fearlessly would be of great public service.

Inadequacy of Financial Return

Many young persons are attracted to teaching because it offers relatively good financial returns to the person just out of college. This lure may be the basis for much disappointment later on, however, for the profession does not offer long-term financial security. Few states have adequate pension or retirement allowance plans. Many lack any universally applied minimum salary schedule and almost everywhere the salary sched-

ules in force were abrogated during the depression. This would have been expected and acceptable had the salary schedules been adequate in good times, but they were not. The average income of teachers in 1926 was \$1,277. This was about the income of workers in the furniture, glass, clay products, and bituminous coal industries. It was significantly *less* than the average dollar earnings of workers in the women's clothing, foundries, street railway, motor vehicles, iron and steel, and anthracite coal industries. It was only two-thirds the earnings of the federal government's clerical employees in Washington.¹ These yearly earnings dropped to an average of \$1,222 in 1933-34 and remained at \$1,226 during the year 1934-35.² Meantime, the requirements for the training and certification of teachers have steadily mounted with consequent increases in the cost of preparing for the profession.

When we turn to rural schools, the figures are almost unbelievable. In county schools in Alabama, the median salary paid white elementary teachers was \$476 in 1934-35; the median in Negro schools was \$378. In Arkansas, the median white elementary school salary was \$384, and that in Negro schools, \$244. In Maine, in towns under 5,000 population, the average salary was \$586; in Vermont, \$573; in one-teacher schools in Washington, \$654; in South Dakota, \$627; in Pennsylvania, \$884; and in New Mexico, \$731.³ It should be remembered that half the teachers received salaries either at or *below* these figures.

In view of the insecurity suffered by teachers in securing and holding positions and in view of the very limited financial return averaged by members of the profession, it is evident that teachers as a group can undertake only very slender financial

¹ R. S. Lynd, "The People as Consumers," in *Recent Social Trends in the United States*, report of the President's Research Committee on Social Trends (New York: McGraw-Hill, 1933), p. 859.

² "The Teacher's Economic Position," *Research Bulletin*, National Education Association, XIII, No. 4 (Sept. 1935), p. 239.

³ "Salaries of School Employees, 1934-35," *Research Bulletin*, National Education Association, XIII, No. 2 (March 1935), pp. 27, 28, 29.

obligations without great worry and strain. While the salaries may be adequate to care temporarily for a young unmarried person just out of college, they are not adequate for assuming the obligations of family life, for caring for dependents, for laying aside protection against accident, illness, and old age. Yet we know that hundreds of thousands of teachers do have all these obligations and therefore must be under very great strain. The time has come to raise the question frankly: Are the parents of the country willing to have their children trained by a personnel which must work and live under such conditions? Are they content with a personnel which will remain at work under such conditions?

*Need for Major Changes in Organization and
Public Support of Education*

Many of the unwholesome conditions mentioned above in connection with the employment and tenure of teachers can be traced to the narrow-minded politician on local school boards, and could be remedied greatly by the establishment of larger units of administration such as the county or combinations of counties. This would reduce greatly the number of undesirable school-board members and would lessen the opportunities of local meddlers in school affairs. Also, it would effect considerable financial saving. Many of the extremely low salaries in rural areas are due to the sheer inability of local districts to pay more and could be partially alleviated by the adoption of state-wide equalization plans in which the state authorities set up and pay minimum salaries which the county authorities are required to supplement. Of course, there exist whole states that are relatively poor and apparently the only hope for teachers in these states is that the national government will take some steps to provide financial aid for equalizing educational facilities and salaries.

This whole issue might be clarified considerably by studies of the mental hygiene of teachers in the various salary brackets. It is very hard to compute in dollars exactly what salary a

person needs in order to live satisfactorily in different communities and with different responsibilities; but it would not be difficult to find out the critical levels of income in different communities, below which a significant proportion of the teachers show strain or an important narrowing of educative experiences. This is also a more reasonable and appealing basis upon which to ask for increased financial return for professional service. Certainly, most people would not wish public servants to be forced into neuroticism, maladjustment, and incompetence by the low salaries paid for conscientious service.

Relationships between Teachers, Supervisors, and Administrators

Another factor which conditions greatly the prevailing mood in classrooms is the relationship maintained by supervisors and administrators to the teaching personnel. In many cases this relationship is an admirable one. Teachers participate in the development of curricula, they have freedom to vary procedures in accordance with the needs and interests of pupils and to take advantage of significant happenings in the community or the world. "Discipline" does not have to be rigid and semi-military, but is considerate and sympathetic. Teachers working under such conditions are not mere artisans applying automatically the rule-of-thumb techniques which they have learned—they can be real artists shaping the personalities of their pupils through every classroom happening. They have a sense of personal worth, of the significance of the roles which they are playing in the lives of their pupils. Under these conditions, teaching becomes a profession and a satisfactory occupation for fulfilling the ego needs of the teacher.

Unfortunately, such wholesome conditions are far from universal. There are still too many administrators who are at least semi-dictators and too many supervisors who feel offended if a teacher develops procedures of her own instead of following closely the supervisor's techniques. Teachers are still frightened by some principals and still try to give the "right" answer in teachers' meetings instead of freely entering a discussion.

Many teachers are still afraid to ask help on their more difficult problems because they are afraid to admit that they have such problems—it might affect their ratings. Of course, all of this is merely another way of saying that old-fashioned schools still exist, staffed by administrators and supervisors who maintain a semi-military discipline among the teaching staff and require the latter to maintain it among the pupils. In such organizations there are frequently fear instead of sympathy, feelings of insecurity instead of confidence, worry, tension, and strain instead of joy and relaxation, dull drab work instead of zest and purposeful activity. The prevailing mood in these autocratically administered schools is quite the antithesis of the prevailing mood in the more modern schools—to a great extent because the administrators and supervisors have set the pattern of domination, repression, and blame.

One does not like to admit that the old formal schools with their parrot-like recitations, regimentation of movement, autocratic discipline, and repression of teacher initiative still exist. Yet recent publications show that a large amount of absolute uniformity in method and content continues to be demanded. For example, a bulletin published by the Research Division of the National Educational Association in 1935 reveals the situation with regard to reading.⁴ Among 172 school systems, *selected because of outstanding achievement in reading*, the following percentages expect

a high degree of uniformity in classroom procedures of all teachers of a given grade: in cities over 100,000 population, 53 per cent; in cities between 30,000 and 100,000 population, 53 per cent; in cities under 30,000 population, 69 per cent; and in rural areas, 75 per cent. In more than one-fourth of the cases this uniformity of procedure is reported to be secured by supervisors who “outline the work to be done *in specific detail*.”

There is every reason to suppose that the same practices occur in other subjects too.

⁴“Better Reading Instruction,” *Research Bulletin*, XIII, No. 5 (Nov. 1935).

Under such conditions, it is very difficult for teachers to grow into effectively integrated, creative, professional people. The persons who could do the best work suffer the most because they are more or less continuously frustrated. Administration and supervision of this type favors the attitude that school teaching is a mere job—the pounding of facts and skills into the heads and muscles of more or less resistant or conforming pupils. It scarcely permits of the view that the most important function of a teacher is personnel work.

It would be a useful service for someone to cooperate with a state department of education in making studies of the prevailing mood in classrooms in different communities representing contrasts in administrative and supervisory policies. Theoretically, we know the answer; practically, a few good studies would provide a most useful leverage for state officials. Naturally, the findings would not be uniformly favorable or unfavorable because individual teachers sometimes rise above their systems and others fail to measure up. A poor teacher in an up-to-date system may easily show worse classroom conditions than the average teacher in an old-fashioned system. Nevertheless, such studies would be well worth making.

Increase of Teachers' Insecurity by Pressure Groups

Two volumes of the Report of the Commission on the Social Studies of the American Historical Association reveal the extent and the genuineness of still another cause of strain, worry, and repression within schools⁵—the activities of persons and organizations outside of schools. These reports show that individuals with particular biases, as well as organized pressure groups, are always on the lookout for things to criticize, for opportunities to force their opinions into the curriculum, for chances to eliminate from school work any who may hold opinions differing from their own. The school teacher seems to be a

⁵ Bessie L. Pierce, *Citizens' Organizations and the Civic Training of Youth*, report of the Commission on the Social Studies, Part III; and Howard K. Beale, *Are American Teachers Free?* report of the Commission on the Social Studies, Part XII (New York: Scribner's, 1936).

particularly vulnerable individual. Very widely throughout the country he will lose his position as the result of gossip or formally preferred but unproven charges of immorality or radicalism. The furore created in the community by the mere existence of the gossip or the charges is sufficient to destroy his usefulness as a teacher in the minds of the local school-board members and of the superintendent. This condition tremendously weakens the security of teachers and renders them vulnerable to the attack of any pressure group or of any individual citizen of power or prestige who may be offended by them.

Teachers can hardly be honest, persistent, and forceful in their search for truth while this remains true—they must remain the servile exponents of the community's traditional mores and concepts. Worst of all, their own self-respect must often be slightly tainted with hypocrisy. Indubitably, such a condition must influence the atmosphere of the classroom, must cause teachers to shrink, to sidestep, to parry some questions from pupils. Pupils undoubtedly perceive this and thereafter must feel less confidence and less respect for the teacher—the vital relationship of confidence between the two must be undermined rather than deepened.

Need for Strong Professional Organizations

The best defense that teachers can have against their present vulnerability probably lies in the direction of the permeation of the teaching staff by a more genuinely professional feeling, implemented by strong professional organizations. Physicians treating the most baffling cases do not feel this weakness nor show signs of the resultant "inferiority feeling." They have a strong association to defend them. Apparently, teachers need to strengthen greatly their professional associations, to develop in these associations techniques and facilities for educating the public regarding the obligations and rights of members of the profession. Also, they must develop in these associations strong agencies for passing judiciously upon cases where teachers have been attacked and for defending teachers who have been un-

fairly treated. The ease with which pressure groups have procured legislation requiring "Loyalty Oaths" from teachers and the unfair use to which this legislation has occasionally been put are excellent evidences of teachers' vulnerability as things stand now. The detrimental influence which this vulnerability is having upon the morale of members of the profession cannot be doubted. As things are, the very right of teachers to defend themselves through affiliation with unions or by strengthening other professional organizations is frequently questioned. That such conditions decrease the effectiveness of teachers in the classroom and have unwholesome reverberations upon the pupils should be brought out to the public.

MALADJUSTED TEACHERS AS A SERIOUS PERSONNEL PROBLEM

This report must admit the presence among the teachers of the country of a goodly number of persons who are of doubtful value in their influence upon maturing personalities or who are definitely detrimental in their influence upon children. These teachers fall into various categories:

1. Their experience background may be so meagre in range and poor in quality that they lack any real insight into reality. They may extend prejudice, superstition, and unreasoning emotionalized attitudes by their teaching.
2. They may lack aesthetic sensitivity to the point of failing to make children conscious of aesthetic values and of failing to encourage the development of the powers of aesthetic expression in children. Drab lives and dulled outlooks will be the lot of their pupils; their teaching will point the way to nothing better.
3. They may be emotionally too labile and therefore temperamentally unfitted for their tasks. They may show tendencies to moods of depression, sulkiness, sarcasm, criticism, bullying, or domination. Overwhelming emotional outbursts may intimidate children and fill classrooms with an atmosphere surcharged with tension.

4. They may be suffering from unresolved emotional conflicts, inferiority feelings, racial prejudices, fears, or neurotic habits which will make them sources of psychic contagion, which will cause them to use the classroom as an opportunity for compensation or for relief, which at the very least will make their influence on personality maturing and the meeting of the personality needs of children a negative influence.

5. They may possess deep-rooted value concepts of doubtful validity or of strong prejudice which they seek to pass on to pupils. The extremely radical of unreasoning emotion, the bigotedly conservative, the unadaptable worshipper of a dogma inherited from an equally closed-minded parent or sect—these are dangerous to their pupils. They may produce strong antagonisms or open revolt in children or they may be successful in frustrating the objectives of education by inculcating their own warped values. The completely frivolous teacher, if there be such, would be equally lacking in worth as a source of guidance in the crystallization of realistically valid attitudes and value concepts.

Every psychiatrist who has dealt extensively with school problems or with juvenile delinquents knows that there exist teachers who may be described by these categories. A few studies have been made which show directly the bad influence of these persons upon the children in their classrooms, but these studies are so limited in scope that they are not quotable because they would identify the schools and teachers involved. We are in great need of broader studies covering a number of school systems and a great number of teachers. The studies should include: locating teachers having emotional difficulties; pairing them with others of similar intelligence, training, and experience who show good emotional adjustment; recording and evaluating significant occurrences in classrooms with comparable groups of children taught by these paired teachers.

Upon the findings of such studies would depend the development of a policy for handling such situations—perhaps the teacher needs the care of a psychiatrist, perhaps the teacher

needs better or more supervision, perhaps professional re-education would be enough, but, more likely, personal re-education is necessary. Perhaps the teacher should be eliminated from the profession, perhaps similar people should not be admitted to training for teaching, or perhaps attention to personality difficulties during the training period would make a good teacher of him. These questions cannot be definitely answered until we know more surely and objectively just what role emotional maladjustment plays in determining the influence of teachers upon children. One thing is sure—teachers are also human beings, they are seldom irretrievably bad, but are often in need of sympathetic understanding, wise counsel, and assistance in solving their personal problems. Blandly to expect or require them to meet all of life's problems without the consideration accorded other adults is unreasonable. We do not know whether any considerable number of them would remain psychic liabilities to their pupils because of basic defects if they were given more sympathetic assistance and challenged by a free opportunity to make a contribution to the lives of their pupils.

NATURE OF PERSONAL RELATIONSHIPS

The point must be made over and over again that the personal contacts and relationships experienced by children in school are at least equal in importance to the knowledge gained and the skills developed there. These personal relationships either satisfy or frustrate basic personality needs. They are rich sources of both pleasant and unpleasant affect, and they exercise an enormous influence on the organization of patterns of behavior, on the development of attitudes, and the crystallizing of ideals and value concepts. In view of these facts, it is surprising that so little direct research and experimentation has been undertaken in this aspect of education.

Types of Personal Relationships

Social psychologists indicate at least four types of basic relationship between individuals in group situations. For the pres-

ent discussion, these basic relationships will be called: mutual acceptance, mutual rejection, leadership, and isolation. Mutual acceptance describes situations where two or more individuals enjoy associating themselves together for carrying on activities to their common interest and advantage. Congeniality and comradeship are characteristic of such groupings, pleasant affect usually accompanies the association together, and the effect of the association is to release individuals from inhibitions and self-consciousness and to facilitate constructive activity.⁶

Mutual rejection describes situations where persons tend to avoid each other, to show prejudice, antipathy, or antagonism. Persons who reject each other do not enjoy association with each other and do not easily engage in common enterprises. Contacts between them are marked by unpleasant tension and friction and in extreme cases by open hostility. The effect of the association of such persons is to increase inhibitions and internal strain and to injure the effectiveness of group activities.⁷

Leadership describes the situation in which a single person, or a small group of persons, enlists the interest of the remainder of the group and is recognized and admired by the group as a pace-setter and model. The members of the group usually find it pleasant to be associated with the leader and with each other as they work for the goals that are crystallized and defined for them by the leader. The qualities found in leaders vary from situation to situation, different situations requiring different characteristics in leaders. Effective leadership tends to increase greatly the effectiveness and the satisfyingness of group activities.⁸

Social isolation marks the situation in which individuals not only are not accepted by the group as a whole, including the leaders, but in which these individuals are unable to establish

⁶ See Kimball Young, *Social Psychology*, Part III: Personality and Group Participation (New York: Knopf, 1930), pp. 203-398.

⁷ *Ibid.*, Chap. XVIII: Prejudice as Outcome of Subjective Patterns, pp. 454-77.

⁸ *Ibid.*, Chap. XV: Leadership, Authority and Prestige, pp. 361-98. See also M. Van Waters, "The Child Who Is a Leader," *Survey*, LVIII (Sept. 1, 1927), 498-505.

mutual relations of congeniality and comradeship with any members of the group. This general rejection frustrates a basic personality need, gives rise to very strong unpleasant emotions, lowers the effectiveness of the behavior of the isolated person, and contributes greatly to the disorganization of the personality. It is likely to produce mental conflict within the individual and to give rise either to strong antisocial behavior or to the withdrawal of the individual from participation in all social activities.

Affective Valence between Personalities

The explanation for these social phenomena of acceptance, rejection, leadership, and isolation apparently lies in the existence between individuals of a sort of affective valence. This is a drawing or a repelling power which personalities exert toward each other and which enters consciousness as a feeling of sympathy, liking, admiration, respect, or affection, or as a feeling of dislike, disdain, antagonism, jealousy, or physical revulsion. These valences between personalities seem to be influenced greatly by cues through which individuals recognize that they have common needs and purposes or antagonistic needs and intentions. They are strongly conditioned by cultural factors in experience as well as by traumatic happenings. In fact, all the factors that have been described as contributing to the genesis of attitudes play roles in determining interpersonality valences. The latter really are special attitudes which predispose an individual to seek the companionship, cooperation, and attention of persons possessing certain characteristics and to shun such associations with persons possessing certain other characteristics.

PERSONAL RELATIONSHIPS IN EDUCATIONAL INSTITUTIONS

On a purely common-sense basis, we know that the four types of personal relationship described above are all found in every school and classroom in the country. From the work of psychiatric clinics dealing with school children, we also know that

these personal relationships frequently are determining factors in producing or checking the development of wholesome behavior and attitudes in the children. J. L. Moreno has given us an interesting study of this by his experimental analyses of the valences existing between personalities in a correctional school for girls and in several public and private schools.⁹

Moreno permitted the girls in the correctional institution to choose their own cottage mates, their own work groups, and their own associates for various other activities. He then tested the affective reactions which the girls inspired in each other and felt that the affective valences found were an adequate explanation of the choices made and of various other happenings which occurred in the life of the schools. Dr. Moreno also found that the affective relationships between certain individuals varied from one activity to another and permitted different groupings of girls in the various aspects of their daily life together. For example, work, recreation, and sharing a room demanded quite different characteristics among the cooperating members to insure mutual acceptance and pleasant relationships.

The social structure of functional groups was found to be a composite of the affective valences existing between individuals, and the effectiveness and satisfactoriness of the groupings, both from the institutional point of view and from the points of view of the participating girls, were conditioned markedly by these relationships. A partial analysis of two of the cottage groups will serve as an illustration: Cottage family C11 was made up of twenty-nine girls. This group showed forty mutual acceptances and one mutual rejection. It showed eight girls who attracted a considerable number of girls to themselves and only three girls who were isolated in the group. Dr. Moreno rated 85.5 per cent of the affective valences between the girls of this cottage as attractions and only 14.5 per cent as rejections.¹⁰ Cottage family C8 was made up of thirty-three girls. This group

⁹ J. L. Moreno, *Who Shall Survive?* Nervous and Mental Disease Monograph Series, No. 58 (Washington: Nervous and Mental Disease Publishing Co., 1934).

¹⁰ *Ibid.*, p. 126.

showed ten mutual acceptances, seven mutual rejections, and thirteen isolated individuals. Only one person attracted any considerable number of persons to herself while three girls were called "stars of rejection" because so many girls reacted unfavorably to them. One of them was rejected by sixteen of her companions. Dr. Moreno rated 47.5 per cent of the affective valences within this group as attractions and 52.5 per cent as rejections.¹¹

It is evident at a glance that the prevailing moods of these two groups must have been strikingly different. The morale of the first group permitted the girls to undertake serious work or recreation with a minimum of friction and a maximum of co-operation. Hardly any activity could be undertaken by the second group without the immediate appearance of tension, bickering, or open quarrels. Dr. Moreno found a practicable way to improve the peace and effectiveness of the institution by transferring girls to cottages and work assignments where they did not meet widespread rejection but did find mutual attractions with others. Both work efficiency and personal adjustments benefited by these transfers.

The implications of this material for public education are direct. Dr. Moreno found the same contrasts of affective structure within public school classes that he found in the institutional groups. Undoubtedly, in public schools numerous mutual rejections exist between teachers on the same faculty, between pupils in the same classes, and between pupils and teachers who are thrown together in functional relationships. Individual pupils sometimes get "picked-on" by their teachers; teachers are sometimes tormented almost beyond endurance by pupils who reject them emotionally; individual pupils are often the butt of the jokes, teasing, and sarcasm of cliques of children who reject them for one reason or another. The existence of leaders, or "stars," is recognized everywhere and requires as much careful consideration and handling as mutual rejections, for not a few adolescents are spoiled by the adulation they receive at

¹¹ *Ibid.*, p. 123.

home and at school. Mutual attractions between teachers and pupils and between pupils are easily recognized, too, and could be used to improve the morale and effectiveness of classrooms and extra-curricular activities.

These personnel relationships need to be made more conscious in the minds of all educational workers in order that isolated children may be brought into effective group participation, in order that the effects of mutual rejections may be softened and satisfying belongings established. It is equally important to recognize leaders of all sorts and to demand a genuine conscious assumption of social responsibilities on their parts which will be commensurate with the pleasure they derive from being leaders. Mutual attractions between teachers and pupils sometimes degenerate into "crushes" or give rise to the favoritism so often complained of by children unless they are recognized and treated wisely by the adults concerned.

CHARACTERISTICS OF TEACHERS

Because teachers play such a dominant role in classrooms under present types of school organization, the characteristics in them which influence the affective valence of their relationships with pupils are of paramount importance. Not much work has been done in this area, but fortunately we have a little information.

Frank W. Hart secured questionnaire replies from 10,000 high school seniors, who were asked to describe both the best- and least-liked teachers they had ever had.¹² They were asked to designate also the most effective teacher they had ever had; and four out of five of the students declared that the best-liked teacher was also the best teacher. Three out of four teachers then in the school were described as resembling the best-liked teacher more than the least-liked one,¹³ showing that the preponderance of the affective valences between teachers and pupils are attractions. This is indeed fortunate and indicates

¹² F. W. Hart, *Teachers and Teaching* (New York: Macmillan, 1934).

¹³ *Ibid.*, p. 248.

that the schools already possess a personnel which can undertake the curricular development suggested in previous pages with a good chance of success.

Hart developed a sort of composite picture of the best-liked and the least-liked teachers on the basis of replies from 3,725 of the 10,000 high school seniors. The fifteen most frequently mentioned reasons for liking a teacher best and the same number of reasons for liking a teacher least are set forth in the following tables:

REASONS FOR LIKING "TEACHER A" BEST AS REPORTED BY
3,725 HIGH SCHOOL SENIORS¹⁴

Reasons for Liking "Teacher A" Best	Frequency of Mention	Rank
Helpful with school work, explains lessons and assignments clearly and thoroughly, uses examples in teaching	1,950	1
Cheerful, happy, good-natured, jolly, has a sense of humor, can take a joke	1,429	2
Human, friendly, companionable, "one of us"	1,024	3
Interested in and understands pupils	937	4
Makes work interesting, creates a desire to work, makes class work a pleasure	805	5
Strict, has control of the class, commands respect	753	6
Impartial, shows no favoritism, has no pets	695	7
Not cross, crabby, grouchy, nagging, or sarcastic	613	8
"We learned the subject"	538	9
A pleasing personality	504	10
Patient, kindly, sympathetic	485	11
Fair in marking and grading, fair in giving examinations and tests	475	12
Fair and square in dealing with pupils, has good discipline	366	13
Requires that work be done properly and promptly, makes you work	364	14
Considerate of pupils' feelings in the presence of the class, courteous, makes you feel at ease	362	15

Interestingly enough, teachers are best liked for their helpfulness in facilitating learning. Then come immediately such personality characteristics as cheerfulness, good nature, sense of humor, friendliness, fairness, and sympathetic understanding. In contrast, teachers become the least liked because of the unpleasant affect they produce by being cross, grouchy, or sarcastic, by never smiling, or by losing their tempers. Ineffectiveness as a teacher takes second rank in leading to rejection of a

¹⁴ *Ibid.*, p. 131. Reprinted by permission of the Macmillan Co.

REASONS FOR LIKING "TEACHER Z" LEAST AS REPORTED BY
3,725 HIGH SCHOOL SENIORS¹⁵

Reasons for Liking "Teacher Z" Least	Frequency of Mention	Rank
Too cross, crabby, grouchy, never smiles, nagging, sarcastic, loses temper, "flies off the handle"	1,708	1
Not helpful with school work, does not explain lessons and assignments, not clear, work not planned	1,025	2
Partial, has "pets" or favored students, and "picks on certain pupils"	859	3
Superior, aloof, haughty, "snooty," overbearing, does not know you out of class	775	4
Mean, unreasonable, hardboiled, intolerant, ill-mannered, too strict, makes life miserable	652	5
Unfair in marking and grading, unfair in tests and examinations	614	6
Inconsiderate of pupils' feelings, bawls out pupils in presence of classmates, pupils are afraid and ill at ease and dread class	551	7
Not interested in pupils and does not understand them	442	8
Unreasonable assignments and home work	350	9
Too loose in discipline, no control of class, does not command respect	313	10
Does not stick to the subject, brings in too many irrelevant personal matters, talks too much	301	11
We did not learn what we were supposed to	275	12
Dull, stupid, uninteresting	275	13
Too old-fashioned, too old to be teaching	224	14
Not fair and square in dealing with pupils	203	15

teacher by pupils. Other forms of behavior which produce dislike of a teacher are: being partial, having "pets," "picking on certain pupils," acting superior, aloof, haughty, "snooty," mean, unreasonable, "hardboiled," intolerant, ill-mannered, being too strict, or failing to recognize pupils outside of class.

Perhaps the factors influencing the affective valences between teachers and pupils can be clarified still further by the direct quotation of a few of the descriptions of best-liked and least-liked teachers supplied by these pupils. The best-liked teacher has been designated as "Teacher A" and the least-liked as "Teacher Z."

Teacher A was one in whom a boy or girl could have perfect confidence. She was quick to see one's point of view and would not ridicule or embarrass one in any way, if at all avoidable. She was always prompt; in fact, she was a perfect example of what she expected of the students. She was not too serious to see any funny thing at which

¹⁵ *Ibid.*, p. 250. Reprinted by permission of the Macmillan Co.

the students might laugh, but would not allow the class to laugh at one person's error if it would harm the student. She was friendly and cordial with everyone who would permit it. I think every student respected her.

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Teacher A was not the best teacher I have had. However, I was anxious to work hard and made good grades because I knew she was backing me and hoping that I would win. It was her confidence of my success that inspired me to work for new records. She seemed to be interested in me. I do not know if the others felt about her as I did, but I know I would have done anything for her. I think the feeling that the teacher is your friend, ready and anxious to help, is the feeling that inspires one to do his best.¹⁶

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Teacher Z was overbearing, superior and conceited. He was very brilliant, good looking and knew it. He was partial to his friends and hard on those who didn't "rate." I can speak as one who was rather a bit on the good side, but that did not make me blind to his other nature. I cannot really express my distaste for this person. I merely hate and still hate him.

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The one I have liked least of all is one who is forever nagging the pupils. She always has a frown on her face and is aroused at the slightest noise. She is very strict with the pupils, so strict that the students cannot do their work. She would be better as a jail-keeper, because she does not permit a student to leave his seat. She has rarely been known to help a student other than giving them the assignment. To a new student, she gives the same treatment that she gives the old.¹⁷

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The reason I did not like Teacher Z was because I was afraid of her. She taught me a lot, but still I was afraid to ask her a question, for fear she would get angry. She had no sense of humor. I did not feel as if she was a friend to me. I had to be very careful with all my actions, so as not to have her get angry. I felt like a prisoner in her room.¹⁸

¹⁶ *Ibid.*, p. 9.

¹⁷ *Ibid.*, p. 146.

¹⁸ *Ibid.*, p. 147.

FUNCTIONAL BASIS OF PUPIL-TEACHER RELATIONSHIPS

The studies of Moreno and of Hart show that a teacher may be attracted to, may reject, or may be indifferent to a given pupil in the emotional relationship or "valence" between them. The same emotional reactions toward teachers occur in children. The bases of these affective valences need a great deal more investigation, although we can make a rather convincing theoretical statement about them even now. The status of the individual's personality needs must be a primary consideration. Any needs which remain unsatisfied in either teacher or pupil must give rise to affectively-toned preoccupations that will color or predetermine the emotional valence between them.

A given child may seem to a teacher to be a nuisance, a menace, an asset, an opportunity to exercise power, a source of duty or responsibility, an appropriate object for affection, or an opportunity to relieve tension by emotional explosions, depending upon the teacher's preoccupations and the characteristics shown by the child. If he is a new teacher, is about to go on tenure, or will win a promotion providing he gets high ratings for his work, then the dull child is a nuisance and the non-cooperating child a menace to his success. The bright co-operative child is an asset to be exploited because of the fine showing he makes possible before the raters. The teacher with inferiority feelings may find in the docile child an opportunity for the exercise of power and in the aggressive, self-assertive child the excuse for the release of emotional tension. The teacher who feels alone in the world may find appropriate objects for affection among his pupils, and the teacher whose life has not been a conspicuous success may find personal significance by taking special pains to help the dull, unattractive, or underprivileged among his pupils.

In the same way the child who has been neglected or rejected at home may carry his pattern of aggressiveness to school with him and find in the dominating or uninterested teacher an antagonist whom he must circumvent, or a significant adult whom he must annoy into giving him the personal attention for which

he is hungry. These children have to be won over and their cooperation secured by sympathetic understanding, praise, and emotional acceptance by the teacher and the group, on the basis of successful participation in group activities. In contrast, the overprotected child may seek to find a parent-surrogate in the teacher, one whom he may depend upon to fight his battles for him, to soften requirements and rules, to protect him from the social effects of his own selfishness, to praise and adore him regardless of his behavior. These children have to be brought gradually to understand social reality, and must be prevented from withdrawing from the social group and regressing into fantasy. They constitute a difficult problem because their behavior makes their acceptance by the group difficult to secure; yet they must not be "babied." Children with inferiority feelings because of race, class, religion, personal stigmata, or lack of ability are extremely sensitive and quick to reject a teacher who humiliates them, or who is sarcastic or fussy. They need success and require unbounded patience in the teacher before they can achieve it. The result may be devastating if a teacher, anxious to make a good showing among the other classes of the school, does not exhibit their work along with that of the "stars."

All the children of all the people attend school. They cannot be selected as to temperament, normality of affective desires, or acceptability of patterns of emotional behavior. If teachers be equally unselected as to emotional characteristics a great deal of tension and maladjustment must arise and many educative opportunities will be lost. The personnel problems of schools are clearly the responsibilities of the teachers and of the officials who selected, trained, and employed the teachers. In the initial admittance of prospective teachers to training institutions, cases of extreme maladjustment or unstable temperament must be excluded and continuous personnel work during training and apprenticeship periods must be carried on with those admitted. In this connection, the experimental work now being done by the State Teachers College in Newark, New

Jersey, under the leadership of Dr. M. E. Townsend should be watched with especial interest.¹⁹ Final licensing and placement should take affective characteristics as well as scholarship into consideration—a sympathetic understanding of children and their needs appears to be a *sine qua non* for acceptance. On the job, incompatible personalities need not be kept together and school routines could be varied by teachers in the interest of pupil adjustment. When teachers themselves are faced with serious tensions and problems, consulting psychiatrists should be made available for their help without prejudicing their standing in the system, but in the interest of better personnel relationships within the schools. Some such complete program of selecting, training, placing, and assisting teachers might well be developed experimentally within some one state as a pattern and stimulus to other states.

PROBLEMS DEVELOPING FROM INTERPUPIL RELATIONSHIPS

Interpupil relationships may infect children with neurotic traits, unwholesome attitudes, or unacceptable patterns of behavior. Hysterical or imitative epidemics of tics sometimes occur. Contact with unstable or delinquent children may lead others to try out unwholesome behavior patterns such as truancy, masturbation, or rebellion against authority. Much mistaken sex information is passed on from one child to another, and numerous unwholesome value concepts are assimilated by one child from another with regard to sex, cheating, stealing, or racial antagonisms.

The personality needs of some pupils are definitely frustrated by the behavior of others. Children may deny acceptance into the group to a given child because of his personal appearance, his race, religion, economic status, or parental background. A gang may accept a boy and draw him unwittingly into delinquent behavior. Spectacular activities for which they are

¹⁹ See M. E. Townsend, *Administration of Student Personnel Services in Teacher-training Institutions of the United States*, Contributions to Education, No. 536 (New York: Teachers Coll., Columbia Univ., 1932).

praised by their fellows may lead to dangerous imitation such as stealing rides on autos, trolley cars, or trains, setting fires where they may do damage, or climbing on insecure structures.

By bringing children together into heterogeneous groups as to background and behavior traits, the school offers children many educative experiences and many chances to learn about realities through the voices and deeds of their fellows. But there is a hazard here too. Schools must be sensitive to these possibilities of interpupil infection and must employ workers who understand the needs and motivation which underlie behavior and who are skillful in redirecting unwholesome behavior into channels which are acceptable to society as well as satisfactory to the child. Isolation and repressive discipline do not appear to be remedies. A form of immunization from bad behavior and warped attitudes would be better. This can be accomplished only if preoccupations, due to the frustration of personality needs, are relaxed and removed by conditions which permit the satisfaction of these needs. To manipulate situations so that this can be accomplished requires sympathetic insights and delicate guidance by teachers. It will not do to blame children for these unwholesome effects of associating with each other; instead, the teacher has to recognize both the causes and effects and particularly the direction of the affective valences between children. He must act as a catalyzing agent to insure that the resulting reaction is socially and personally wholesome. Sometimes he has to introduce the affective force of his own personality into the situation in order to restore emotional balance or reasonable action among the children; but in any case, the task is one which demands the best personal poise and the maximum of social consciousness and skill. Can teachers be trained in these respects? We do not know for sure, but many believe that they can. Here is a rich field for research and experimentation involving both prospective and in-service teachers. Careful records of procedures used in the experimental training of teachers showing different configurations of personality traits need to be made; and then follow-up studies of these

teachers with records of their success or failure in handling different types of situations should be made.

AFFECTIVE DEVIATES

As has been suggested earlier in this report, a certain proportion of the school population is made up of children whose patterns of affective behavior do not fall within the range accepted by society, or by psychiatrists, as desirable or "normal." These patterns of action may have evolved as the result of incidents in early infancy, or they may have been precipitated by some immediate and pressing frustration. Whatever the cause, the school has responsibilities for these children. This is recognized now by the presence of numerous "habit clinics" and "behavior clinics" in advanced communities. Experimental studies still are needed, however, to clarify the following aspects of this problem.

For a given school population, what are the number and nature of the deviations from acceptable behavior to be expected?

What are the most effective means of diagnosing the etiology of these aberrations?

What school situations most often aggravate or precipitate these undesirable patterns of behavior?

What are the most effective procedures by which the re-education of these "deviates" may be accomplished?

How can other children most effectively be protected from any bad influence from these "deviates" while the latter are in the process of being re-educated?

CONCLUSION

Clearly, personnel relationships are crucial in determining the influence which schools have upon developing personalities. Not only are persons the agents by which all sorts of educative experiences are guided and administered, but the affective relationships between those persons and the pupils are powerful factors of satisfaction or frustration of personality needs.

Teachers are not merely the machines by which educative experiences are made available to children. They are part of the active environment of the child. Children desire affection from them, status with them, and recognition by them. Many times, the intellectual aspects of school are secondary in importance to the personal relationships established or lost. Sensitiveness to this fact and appropriate consideration for children by school people are therefore imperative. But teachers are also people; they have their own personality needs. Persons managing the schools must be equally sensitive to the needs of teachers, and the public must be concerned with making the profession truly satisfying for the persons at work in it. Otherwise, their own children will suffer.

XII

GENERAL CONCLUSIONS

No COUNT has been made of the number of research studies and experiments suggested in preceding pages, but there must be more than a hundred of them. The whole area of the role of affective factors in personality development and in education fairly bristles with unconquered mountains of ignorance. Fortunately, the present study was assigned only the task of exploring the area, of raising and defining questions rather than of answering them; but this duty to explore does imply responsibility for giving some judgments about the relative importance of the different researches and experiments suggested. This will be done very briefly in this last chapter under appropriate headings.

PHYSIOLOGY AND PSYCHOLOGY OF AFFECTIVE BEHAVIOR

Before educators can place their treatment of individual differences in children on a sure footing, they must have much more detailed and valid information about the physiology and psychology underlying these differences. Before they can perfect their skill in setting up experience and learning situations, they must have much more certain knowledge of the physiology and psychology of motivation and of aesthetic experience. Accordingly, five regions are listed as of greatest moment in this general area of basic physiological psychology.

Physiological Bases of Temperament

Psychologists inevitably must be embarrassed when educators ask them for definitive information about the character and range of individual differences in temperament and about procedures by which these differences may be measured accu-

rately if they exist. This is a knotty problem because it is next to impossible to differentiate innate differences in physiological dynamics from the effects of disease, nutrition, and the impact of the environment. Apparently, the search should be made for significant continuums of variation rather than for specific types, and apparently it is better to make the differentiations on a functional basis rather than to undertake such complete controls as will distinguish innate factors clearly.

*Changes in Physiological Reaction with Changes
in Intensity of Emotion*

Many mistaken conceptions about the hygiene of emotional experiences in education seem to be based upon a misunderstanding of the details of physiological reaction which are a part of emotions of differing intensities. The studies reported in the literature pay little attention to this question of the intensity of feeling or to the scope of the physiological involvements occurring in their subjects. Yet, enough evidence exists to make it certain that we have frequently missed the point of understanding the hygienic or unhygienic role of emotion, because we have not seen its meaning for the individual and have taken for granted certain patterns of physiological reaction when actually they may or may not occur. Delicate research that will differentiate still further the patterns of physiological behavior which accompany emotions of differing depths of significance to the individual are much needed.

Influence of Different Intensities of Emotion upon Learning

The whole concept of learning now held by educators seems to be sadly lacking in insight about the role of motivation and the significance of different intensities of feeling in the learner while he is in the learning situation. It is greatly to be hoped that this will be cleared up by the findings of penetrating research. As long as educators believe in the efficacy of non-functional techniques, they will stagger about with burdens of curricular material that try the patience of teachers, waste the

time of children, and show little return in personality development and more effective citizenship.

*Influence of Different Intensities of Emotion
upon Higher Mental Processes*

Very little can now be stated with assurance regarding the influence of different intensities of emotional involvement upon such mental processes as reasoning, creative imagination, and the crystallization of attitudes and value concepts. This is a difficult area in which to undertake research because genuine emotions arise only when the interaction of the subject and the functional situation really justify them. To arrange situations in which the depth of emotional behavior can be controlled and in which the higher mental processes can be measured accurately at the same time is a staggering task for the experimental psychologist. Perhaps the science should be more ready than it is at present to accept the evidence of case-history material in this area. At any rate, the need for more information and for tentative hypotheses is quite pressing in the educational world.

*Role of Feeling and Emotion in Aesthetic Experience
and in Artistic Production*

No region of research has been more neglected than the psychology of aesthetics. School people would like very much to know the psychological conditions under which aesthetic experiences take hold of individuals and give rise to feelings that carry valid meaning. Equally, they would like to know the psychological conditions that spur individuals to express their own experiences and feelings through various artistic media. The large place that the arts have had in all significant cultures makes it apparent that mankind seeks the satisfaction of deep needs through the production and experience of aesthetic materials, but definite knowledge of the psychological forces involved are very meager. One suspects that this is because non-verbal aspects of the mind play the chief role and because the quantification of qualitative differences in behavior and ex-

perience is well-nigh impossible. But science cannot deny much longer the reasonableness and even the necessity for descriptive studies in areas where quantification is so difficult. Educators would welcome even the most rudimentary researches dealing with this area.

RESEARCH IN CHILD DEVELOPMENT

To know with increasing certainty the conditions and experiences which will bring children to an optimum development of their personalities in our culture must be always a major hope of educators. School people are always asking for a definitive answer to the questions: What do children need? What are wholesome means by which these needs can be met in schools? On the other hand, it is only natural that psychologists should be wary about supplying definitive answers. They realize the tremendous complexity and variation among the myriad forces which, by their interaction, mould the developing personality. But this justifiable reluctance to go beyond demonstrated fact and supply fallacious over-simplifications cannot justify psychologists in continuing longer the non-functional mass treatment of data which result in conclusions of very little value to persons charged with guiding the experiences of actual flesh and blood children. Admitting the difficulties involved and recognizing the professional necessity which child psychologists face of keeping the respect of their colleagues in physiological, comparative, experimental, and statistical psychology, they still have the obligation to wrestle with the dynamic, functional problems of child development. Four regions are listed below as the inescapable minimum into which child psychologists have the duty to extend their investigations.

Ranges of Acceptable Affective Behavior

Earlier chapters have suggested that persons show acceptable personality maturity all through their development when they employ patterns of affective behavior which are effective in meeting their own needs and, at the same time, are socially

acceptable within the culture. But even if we accept such a definition, we are not yet in a position to supply school people even with rough inventories of the patterns of behavior that are appropriate for children of different ages within our culture. Several scales of emotional or of social maturity have appeared, but they are unsatisfactory because they lump together all the various aspects of social and emotional behavior and arrive at a score intended to show the adjustment of the child. Of course, this will not do because maladjustment in a single area may throw a child's whole adjustment out of gear. More significant would be a whole series of inventories or schedules each dealing with a specific area of affective or social behavior. Each schedule should show the widest possible range of behavior and designate the critical points toward the extremes beyond which behavior must be regarded as maladjusted because of either the social or the personal effects it produces. Such schedules, if intelligently used by school people, would be most valuable aids for guidance and for personnel work by teachers.

Validation of Personality Needs

Psychiatrists and clinical psychologists have pointed out very effectively the conditions and experiences that warp children's attitudes and personalities and give rise to unwholesome, unacceptable behavior. They have done this so well that many school people are much disturbed to know what they still may do to, and with, children to bring them up to be normal, adjusted adults. The time has come to look at the obverse of the picture of maladjustment, to attempt to state in positive terms what children need in the way of conditions and experiences in order to develop normally. But these positive formulations should not be left to dogmatists or reformers with fish to fry about the pattern of the new social order or of the moral universe. These formulations should be based upon the scientific longitudinal study of the development of normal personalities and should be validated by the best statistical and analytical means available. Such verified formulations of personality

needs are essential prerequisites for the scientific operation of educational institutions and will be of the utmost service to the professional personnel in classrooms as well as to those persons entrusted with the determination of educational policies.

Evaluation of the Status of a Child's Personality Needs

Dr. H. A. Murray of the Harvard Psychological Clinic has given very valuable leads for the experimental development of means for evaluating the status of an individual's personality needs. His thematic apperception test and other methods of investigating fantasy should be developed and extended until it is possible to arrive at insights into the preoccupations, inhibitions, and deprivations of an individual without a hundred hours in the hands of a psychoanalyst. The unconscious, but no less genuine, mistreatment of personality needs which schools offer to so many children could be replaced by appropriate organization of curricular materials and appropriate personal relationships with educational workers, if the means of diagnosing personality needs were available and readily applicable. It is greatly to be hoped that the development and validation of the necessary diagnostic materials and methods will not be delayed. Researches like those going on at the Harvard Psychological Clinic should be undertaken simultaneously in a number of other centers.

Role of Experience in Determining Ruling Value Concepts

Everyone will admit that what a person deeply wants to accomplish or to get from life is of basic importance in giving form to his personality. The basic value concepts are the meaningful core about which the personality is organized. An integrated personality will emerge if the core values are harmonious and valid, while mental conflict will occur if the core concepts are inharmonious or incompatible. Failure and frustration are inevitable if basic values are inharmonious with reality. It is a pressing matter, then, to know how these basic value concepts

are born in the heart of the personality. Some of the vital questions to be answered by research are: How important are traumatic happenings in establishing basic desires? What role does the imitation of persons with whom one identifies oneself play in the development of deep-set values? Can valid value concepts be developed by the teaching of precepts? Do value concepts emerge as the result of integrative or differentiative processes which employ accumulating experience to gain insights? Only when reasonably good answers can be given to these questions will educators see the futility of much of the naïve contemporary experimentation with character education, and begin to supply children with really significant experiences. Furthermore, the educator has to convince the public of the scientific reliability of his procedures, and the psychological data are not at hand just now by which he can defend the experimentation that will be necessary to find out how to carry on valid character education in a changing social order.

RESEARCH AND EXPERIMENTATION IN EDUCATION

The final area designated as vitally in need of research and experimentation is the formal training of children in schools. The test of all theory ultimately comes in the classroom and in the personal relationships established and maintained in the institutions supported by society for the training of the young. Practical problems arise here which can never be solved by the laboratory psychologist or the clinical psychiatrist. They have to be worked out by the persons who are professionals in their own service and who are held responsible by the public. The heavy incidence of mental breakdowns, insanity, juvenile delinquency, and bad citizenship at the present moment demands that these professional people embark at once on a program of experimentation designed to make schools more hygienic places for children both mentally and emotionally. Six areas of experimentation devoted to this end are emphasized below as of special importance.

*Role of Aesthetic Experience and Expression
in Promoting Mental Hygiene*

In an earlier chapter four specific lines of experimentation through which aesthetics may contribute directly to personality development were suggested. These were (a) the use of the arts to bring children into the stream of our own culture, to aid them in appreciating how the present has grown out of the past and to assist them in understanding and appreciating other contemporary cultures; (b) the use of the arts as vehicles for self-expression and for organizing and unifying the personality by giving opportunities for the expression of personal convictions and feelings; (c) the use of aesthetic expression and experience as a cathartic for relieving emotional tension and for the conscious development of morale; and (d) the use of the aesthetic productions of young people by teachers and personnel workers to gain insights into their fantasies and needs on the basis of which they may be understood more sympathetically and guided more effectively. None of these four possible values in the aesthetic arts should be ignored by educators. A few places already are experimenting in this region. The number should be multiplied as rapidly as persons of the necessary competence and insight can be procured or trained.

Adaptation of Curricula to Conditions of Mental Hygiene

In order to make schools more hygienic places for children to frequent for educative purposes, two aspects of curricular reorganization must be attempted simultaneously. School people must identify and eliminate from the curriculum of particular children those tasks, materials, and experiences which make unreasonable demands upon them. Some material must be eliminated because the children lack the motivation, capacity, or requisite background to learn it; other material must be eliminated because it is ineffective and inappropriate training for the present-day world. Accompanying the experimental elimination of this material must go the discovery, invention, and try-out of new materials, tasks, and experiences which will

contribute directly to the satisfaction of children's needs or to preparing them for effective behavior as they act to satisfy their own needs. Educators must say farewell to such techniques of curriculum validation as the determination of the importance of an item of information by counting the frequency of its appearance in newspapers and magazines. The relationship that the materials, tasks, and experiences bear to the personality needs of children should be tried as a superior criterion for inclusion in the curriculum.

Personal Relationships as Curricular Material

If we stop to think, we know that the personal relationships which a child experiences at school educate him just as genuinely and importantly as what he reads, sees, hears, or otherwise experiences. This suggests that children's experiences with the school personnel should be studied from this point of view: that the personal relationships into which he enters should be regarded consciously as a part of the planned curriculum, and that the effects of varying these experiences should be evaluated experimentally. Not only do personal relationships directly satisfy or frustrate basic needs, they also teach good or poor techniques for dealing with other people and are instruments by which a child measures his own personal success or failure. To regard teachers primarily as personnel workers, to evaluate their personal influence on children in other than subject-matter terms, to rate them and promote them on this new basis would almost revolutionize education. Mental hygiene clinics are finding out continually that personal relationships actually are damaging the mental health of some children in public schools and suggest that much more attention to this aspect of the curriculum cannot be put off indefinitely.

*Organization and Administration of Schools
for Better Mental Hygiene*

Mental hygiene criteria need to be used in evaluating contemporary organizational and administrative practices in

schools. Whether efficiency and hygiene are synonymous in these matters is questionable. The public pocketbook is sensitive, but it is doubtful whether a majority of the taxpayers knowingly would tolerate the exposure of children to unwholesome conditions and practices if they realized that the basic needs of pupils and teachers alike were frustrated and that warped personalities result. Many organizational and administrative practices were mentioned in a previous chapter as deserving scientific study from the mental hygiene point of view. These include: methods of classifying children, bases for advancement, maturity levels at which tasks and experiences should be introduced, provision for preparatory experience, means of adapting curricula to individual needs, and the appropriateness of supervisory practices. Any of these aspects of educational practice may become a crucial cause of maladjustment in some child or teacher if common policies are carried on blindly; but traditions have momentum, and only clear-cut demonstrations of the danger in old methods and of the practical efficiency of new ones can have any genuine influence. This is why experimentation based upon clear insights are so badly needed in this area.

Mental Health of Professional Personnel in Education

An earlier chapter cited a number of conditions and practices that need to be investigated by experts in mental hygiene to discover whether the profession of education has special hazards to mental health. A good deal of evidence already exists that the profession makes serious demands on the poise and adjustment of the persons who engage in it. More evidence needs to be gathered to show the extent to which tension, ill-health, and mental breakdowns actually result from these occupational hazards, and to serve as a basis for ameliorative planning and action. Because the personal relations experienced by children in schools loom so large in educative influence and value, school boards and administrators must be held accountable for the mental and emotional wholesomeness of the persons

whom they place in contact with children. But teachers are also people—the impossible cannot be expected or demanded of them; and, if research shows that they are frustrated and burdened emotionally beyond what a normal person can stand, then social action in their behalf must be forthcoming from parent-teacher associations, women's clubs, churches, service clubs, and all other agencies for community betterment. Not until penetrating studies of the conditions that teachers face have been made and published can this effective social action be secured.

*Experimentation in Selection and Training
of a Professional Personnel*

Any serious consideration of the mental hygiene aspects of education must culminate inevitably in apprehension about current methods of selecting and training the professional personnel. When one knows the cultural, social, and intellectual selectiveness of normal schools and teachers colleges, as revealed by objective data, the question of the possibility of training the candidates to be effective, sympathetic guides to wholesome personality maturing also arises. A great system of free public education can be no stronger than the people who operate it, who carry out the policies in everyday situations, and, despite marked progress during the past quarter century, the human agents carrying on the work are still very inadequately prepared to meet their obligations. Both creative imagination and scientific research need to be called into play in shaping new experimental techniques for bringing prospective teachers and teachers in service to a sympathetic understanding of the needs of children. It is equally necessary to free prospective teachers from the necessity for mastering so much traditional subject matter and to find better ways of assisting them into insights about the society and the world in which they live. A wide variety of experiments in the forming of effective professional workers should be encouraged as soon as possible. So much that has been suggested earlier in this re-

port depends upon a personnel with insight and sympathy to carry it out that the quality of the training offered these persons is crucial. Professional training is the keystone in the arch of hygienic education.

The Committee on the Relation of Emotion to the Educative Process regards the foregoing areas of investigation and experimentation as most deserving of support and development. All these areas are complex and comprehensive and offer great obstacles to attempts at significant research by individuals. The committee hopes, therefore, that a considerable amount of cooperative effort may be forthcoming as they are attacked. It is not bigness in the sense of a large number of cooperating schools or great masses of subjects that is suggested, but the pooling of the knowledge and skills of a considerable group of experts in the different sciences. Improving the mental hygiene of the schools is not an end which can be accomplished by educators working alone nor yet by psychiatrists through the multiplication of clinics. Perhaps we have here another test of democracy, which demands unselfish and often intangible contributions from many people for the common good.

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INDEX OF NAMES

- Adrian, E. D.
54
Allport, F. H.
41, 148
Allport, G. W.
36, 38, 39, 40, 41, 42, 81, 82, 83, 84,
85, 86
Almack, J. C.
251
Alvarez, W. C.
55
Aylesworth, M.
167, 168
Bard, P.
19, 22, 53
Bartley, S. H.
55
Bayley, N.
70
Beale, H. K.
263
Beebe-Center, G. G.
10, 11, 75
Berger, H.
54
Binet, A.
207
Bird, M. H.
93
Bogardus, E. S.
154
Boldyreff, J. W.
84
Bonzil, B.
145
Braly, K. W.
58
Bridges, K. M. B.
70, 71, 72, 73, 74
Britton, S. W.
56
Bronner, A. F.
152, 153
Brown, T. G.
161
Brunswick, D.
20
Bühler, K.
14, 16
Bunch, M. E.
168
Burnham, W. H.
192
Campbell, C. M.
46
Cannon, W. B.
19, 20, 21, 26, 28, 30, 31, 33, 34, 53
Cantril, H.
40
Carmichael, L.
38
Carter, H. D.
170, 171, 172, 179
Cason, H.
171
Chase, L.
176, 178
Child, C. M.
54, 55
Claparède, E.
13
Coghill, G. E.
55
Coleridge, S. T.
103
Dashiell, J. F.
148
Davis, J.
84
Descartes,
160
Dewey, J.
38, 76, 209
Dexter, E. G.
175

- Diserens, C. M.
175
- Dodson, J. D.
163, 166
- Dottrens, R.
233
- DuBois, R.
155
- Dumas, G.
18, 19, 23, 25, 26, 29, 30, 33, 34, 64,
79
- Dunbar, H. F.
28, 29, 45, 46, 50
- Dunlap, K.
89
- Eaton, W. P.
1
- Eliot, C. S.
209
- Elliott, M. H.
165
- Fechner, G. T.
13
- Fox, C.
173
- Frank, J. D.
177
- Frank, L. K.
112
- Freeman, F. N.
36
- Gates, G. S.
79, 176, 178
- Gesell, A.
68, 69
- Gilchrist, E. P.
167
- Glueck, E. T.
152
- Glueck, S. S.
152
- Goddard, H. H.
207
- Goodenough, F. L.
73, 74
- Gosse, E.
2
- Green, M.
83
- Guilford, J. P.
58
- Hall, J. N.
1
- Hanna, H. V.
58
- Harris, J. W.
173
- Hart, F. W.
272, 273, 276
- Hartshorn, H.
39
- Healy, W.
149, 152, 153
- Henry, T. P.
145
- Herrick, C. J.
12
- Hollingsworth, L.
44
- Honzik, C. H.
163, 164, 165
- Hopkins, L. T.
212, 213
- Huntington, E.
56, 175
- Hurlock, E. B.
168, 169, 175
- Huxley, J. S.
55
- Jacobsen, E.
34, 35
- James, Wm.
37
- Janet, P.
198
- Jones, H. E.
70, 72, 74, 96, 170, 171, 172, 179
- Jones, M. C.
34, 70, 74
- Jones, V.
45
- Kantor, J. B.
76
- Kast, L.
4
- Köhler, W.
38
- Laird, D. A.
148, 178, 179
- Landis, C.
12, 13, 20, 23, 25, 65, 67, 68, 79
- Langfeld, H. S.
104

INDEX OF NAMES

- Lashley, K. S.
 54, 159, 160, 161
 Lasker, B.
 83
 Learned, W.
 240
 Lehmann, A.
 11
 Levy, J.
 199
 Lewin, K.
 27, 36, 47, 77, 78, 96, 108
 Likert, R.
 39, 40, 41
 Lippmann, W.
 85
 Lowes, J. L.
 103
 Lublin, L. I.
 145
 Ludvigh, E. J.
 177
 Lund, F. H.
 6, 79
 Luria, A.
 30, 76, 77
 Lynch, C. A.
 172
 Lynd, H. M.
 145
 Lynd, R. S.
 145, 259
 MacArthur, C. G.
 55
 MacCurdy, J. T.
 76
 MacDougall, Wm.
 63, 64
 Macy, Josiah Jr., Foundation
 4
 Marple, C. H.
 85
 Marston, W.
 76
 May, M.
 39
 Mayer, A.
 175
 Mayo, E.
 150, 151
 Meier, N. C.
 91, 92, 102
 Meltzer, H.
 44
 Miles, W. R.
 151
 Monakow, C. von
 49, 50
 Moore, H. T.
 84
 Moreno, J. L.
 270, 271, 276
 Morgan, C. D.
 200
 Munro, T.
 92, 102
 Murphy, G.
 67, 147
 Murphy, L. B.
 67, 147
 Murray, H. A.
 112, 200, 228, 287
 Myers, G. C.
 174
 Nafe, J. P.
 12
 Nelson, A. K.
 65, 66
 Newman, E. B.
 55
 North,
 38
 Paulhan, F.
 75, 76
 Perkins, E. W.
 93
 Perkins, F. T.
 55
 Peters, W.
 179
 Peterson, J.
 169
 Peterson, R. C.
 85
 Pierce, B. L.
 263
 Pintner, R.
 40
 Pistor, F.
 237
 Plant, J. S.
 120, 124
 Poffenberger, A. T.
 14, 15

- | | |
|--------------------|--------------------|
| Pratt, K. C. | Streitz, R. |
| 65, 66, 67 | 230 |
| Regensberg, J. | Sullivan, E. B. |
| 179 | 166, 167 |
| Rexroad, C. N. | Sun, K. H. |
| 168 | 65, 66 |
| Reymert, M. L. | Tait, W. D. |
| 10 | 177 |
| Ribot, T. A. | Tashiro, F. T. |
| 26 | 55 |
| Richter, C. P. | Taylor, J. H. |
| 72, 73 | 66 |
| Rignano, E. | Terman, L. |
| 49, 50 | 207 |
| Roberts, S. R. | Thorndike, E. L. |
| 143 | 14, 15, 75 |
| Robinson, E. S. | Thrasher, F. M. |
| 14, 15 | 152 |
| Robinson, E. W. | Thurstone, L. L. |
| 165 | 85, 154 |
| Robinson, F. R. | Tolman, E. C. |
| 14 | 163, 164, 165 |
| Ruckmick, C. A. | Townsend, M. E. |
| 302 | 278 |
| Russland, L. O. | Travis, L. E. |
| 176, 178 | 148, 176 |
| Schanck, R. L. | Troland, L. T. |
| 41 | 11 |
| Schmidt, E. | Van Waters, M. |
| 175 | 268 |
| Seashore, C. E. | Vaughn, J. |
| 64, 79, 90 | 169 |
| Shaw, C. R. | Vetter, G. B. |
| 151 | 83 |
| Sherington, C. S. | Viteles, M. S. |
| 160 | 151 |
| Sherman, M. | Warden, C. S. |
| 66, 67, 97, 145 | 167, 168 |
| Shock, N. W. | Warren, H. C. |
| 170, 171, 172, 179 | 38 |
| Silverman, A. | Washburn, M. F. |
| 171 | 26 |
| Silvette, H. | Washburn, R. W. |
| 56 | 69, 70 |
| Simmons, R. | Washburne, C. |
| 164 | 231, 233 |
| Smith, W. W. | Watson, J. B. |
| 63, 170, 171 | 24, 64, 65, 66, 76 |
| Sorokin, P. A. | Wells, F. L. |
| 84 | 46 |
| Stagner, R. | Wheeler, R. H. |
| 172 | 55 |

INDEX OF NAMES

Wickman, E. K.

135

Willoughby, R. R.

144, 145, 146, 147

Woodbury, C.

92, 93

Woods, E. L.

231, 232

Yamagina, K.

54

Young, K.

268

SUBJECT INDEX

- Abilities, appropriateness of curricula to, 230-34
- Ability grouping, 207-8
- Acceptability, personal, 278-79
- Accomplishment, evaluation of, 247
- Activity, need for, 115
- Activity program, 219-20
- Adjustment, basis of, 192
definition of, 46
persisting problems of, 111
social, in first grade, 231
- Administration, educational, 196, 243-51, 260-63
- Admiration, 269
- Adolescents, 134, 140, 144, 248-49
needs of, 44, 226-29
- Aesthetic appreciation, 75, 84, 90-92
- Aesthetic capacities of children, 91
- Aesthetic experience,
as aid to morale, 102, 108, 227, 289
as basis of attitude, 90, 108, 224-26
experimentation with, 224-27, 284, 289
neglect of, 224-28
social role of, 102, 224-26
- Aesthetic expression, 90-92, 108, 134, 226-28, 284, 289
as means of catharsis, 102-4, 227, 289
- Aesthetic maturity, 102-3
- Aesthetic sensitivity, 7, 265
- Affect,
in personal relationships, 267-69
influence during learning, 167-76, 179
influence on recall, 170-74
relation to attitudes, 37
significant findings about, 183-93
- Affection, need for, 117, 128, 132, 152-53, 255
- Affective associations, influence on learning, 170-73
- Affective behavior,
cortical control of, 53-57
influence of maturation on, 68-70
patterning of, 62-67, 74, 79-80, 184, 202-5, 285-86
relation to body dynamics, 18-31, 49-52, 56, 59, 115-16, 134-35, 149, 163-64, 183, 198-99, 282-83
role of habituation in, 75
role of learning, 70-74
- Affective deviates, 108, 135-38, 280, 286
- Affective experience,
and education, 5, 6, 9
continuum of, 30
influence of society on, 139
intensity of, 30
- Affective maturity, criteria of, 98
- Affective states,
and hunger, 30
relation to body dynamics, 30-31, 49
- Affective valence,
between personalities, 269-72
between pupil and teacher, 272-77
- Aims of education, 193-94
- Anarchy, international, 155-56
- Anger, 21, 26, 73
- Anonymity, 145
- Antagonism, 268-69
- Anxiety, 134, 144, 145, 146, 150, 238, 260
- Appetite, 30-31
for emotion, 33
- Arts,
appreciation of the, 75, 84, 90-92
catharsis through the, 227
place in curricula, 224-27
self-expression through the, 226
- Attitudes,
acquired ready-made, 41, 82
and behavior, 39
and efficiency, 151
and reality, 38
anti-religious, 83
arts in formation of, 90, 108, 225-26
as basis of health, 45
as basis of moral behavior, 45-46

- as basis of purpose, 47
- as cause of social conflicts, 43
- as educational objectives, 42, 87-88, 194-95, 205-6, 224-26, 287-88
- as foci of integration, 41, 43-44, 47, 60-61, 95, 105, 108, 153, 189-91, 205-6, 226, 287-88
- as motives, 38
- changed by emotion, 86-87
- conflict between, 41
- define areas of emotion, 37, 43, 88, 95, 190
- definition of, 36
- directive power of, 37-40
- driving power of, 38-40
- essential characteristic of, 37
- evaluation of, 205-6, 287-88
- fixity of, 83-85
- general, 39-40
- genesis of, 40, 80-85, 90, 195, 224-26, 244, 267
- humanitarian, 156
- individual, 41
- influence of motion pictures, 85
- influence of persons, 267
- influence of prestige, 84
- institutional, 41
- loyalty, 60, 105-6
- of delinquents, 152
- of labor, 150-51
- patriotic, 156
- relation to body dynamics, 51, 59
- relation to emotions, 36
- relation to needs 189, 205-6
- research needed about, 163, 205-6, 287-88
- revolutionary, 84
- role in learning, 163
- role in personal relations, 269, 272-75
- role of education in forming, 241
- significance for mental hygiene, 43
- social significance of, 42, 48, 87, 105-6, 139-40, 157, 194-95, 224-26, 289
- socially-useful, 89
- specific, 39-40
- stereotyped, 86
- toward races, 39, 83-84, 153-55, 224-26
- validity of, 38, 190-91
- Attraction, personal, 268-69, 271-72
- Authority, role in life, 120
- Autonomic nervous system,
 - in action emotions, 22
 - in depressing emotions, 23
 - in mild emotion, 19
 - in sexual emotion, 22
 - physiological gradients in, 57
 - role in body dynamics, 52
 - role in emotion, 17
- Behavior,
 - alteration of, 159
 - antisocial, 151-53
 - appropriate to reality, 95, 120
 - blocked, as cause of emotion, 75-76
 - body, dynamics, the source of, 16, 51-52
 - control of emotional, 34
 - cultural patterns of, 90, 99, 108, 139-40, 157, 193-95, 285-86, 289
 - emotion as disorganized, 76-77
 - emotion as dynamic, 77-78, 80
 - infantile, 94
 - influence of attitudes upon, 36-40, 45-46, 89, 104-8, 139-40, 157, 194-95, 287-89
 - influence of maturation on, 68-70
 - maladjusted, 127-35, 138, 280
 - normal range of affective, 97, 202-4, 285-86
 - patterning of affective, 17, 62-67, 74, 79-80, 184, 202-5
 - relation to feelings, 10, 13-16
 - relation to needs, 8, 31, 111, 125-26, 189, 199-205
- Behavior goals, role in emotion, 80
- Behavior problems in pupils, 127-35, 278-80
- Beliefs, importance of for health, 46
- Belonging, need for, 117, 128-32, 145, 152-55
- Berger rhythms, 54
- Biochemical equilibria, 49-52
 - influenced by climate, 56
 - occur in gradients, 54
- Body dynamics, research needed about, 198-99, 282-83
- Brain,
 - cerebral cortex, 53-57
 - role in body dynamics, 52
 - thalamic area, 22, 33, 36, 53-57
- Catharsis, emotional, 102-4, 227, 289
- Cells, as dynamic fields of energy exchange, 54
- Change, social, 141-42, 157, 192, 208-9
- Character, attitudes as basis of, 44-45, 47,

SUBJECT INDEX

- 60-61, 105, 153, 189-91, 205-6, 287-88
- Character education inquiry, 39
- Characteristics of teachers, 272-75, 292
- Child development, research needed in, 95-96, 197-206, 285-88
- Children,
 - aesthetic capacities of, 91
 - affective characteristics of, 197-206, 285-88
 - anxiety in, 146
 - capacities of, 220-21, 245-46
 - diagnosis of maladjustment, 135, 200-205, 280-87
 - dull, 130-31, 234, 245-46
 - effects of failure on, 123, 130-31, 147-48, 189, 216-17, 220-21, 231-32
 - emotion in nursery school, 71-72
 - energy structure of, 198-99
 - erotic preoccupations in, 133
 - gifted, 233
 - influence of others on, 134-46
 - influence of teachers on, 252-53
 - irregular maturation of, 131
 - maladjusted, 110, 127-38, 200-205, 245-46, 280, 285, 287
 - motivation of in school, 234-38, 289-90
 - new-born, 65-67
 - overambitious, 130-31
 - overprotected, 133, 277
 - overstimulation of, 143
 - re-education of, 136, 202-4, 217, 238, 280
 - rejected, 128-29, 270-72, 276, 278
 - social education of, 140, 222-23
 - with infections, 134
 - with peculiarities, 129
 - with special disabilities, 245-46
- Citizenship, world, 156
- Classrooms, emotional climate of, 47, 194-95, 235-38, 244-45, 250, 262-63, 271-72, 289-91
- Classification of pupils, 246-50, 290-91
- Climate,
 - influence on learning, 175
 - influence on physiological equilibria, 56, 175
- Clinics, psychiatric, 280
- Collective bargaining, 149-50
- Compensation, 120, 129, 149
- Competition, 132, 147-49
 - emotional effects of, 148
- Comradeship, 268
- Concepts of value, 46, 60-61, 80, 88-89, 104-8, 122, 147, 153, 189-91, 205-6, 266, 287-88
 - mature, 106, 228-30
 - measurement of, 205, 287-88
 - research needed about, 287
- Conditioning,
 - emotional, 28, 34, 72-74
 - in learning, 159-60
- Conditions, unwholesome, 128-35, 142-56, 254-65
- Conflict in society, 43, 140, 146-51, 153-56
- Conflicts, emotional, 104, 118, 128-34, 227-28, 252-53, 266
- Congeniality, 268
- Contagion, psychic, 134, 146, 266, 279-80
- Contracts required of teachers, 254-55
- Control, emotional, 7, 34-35, 101
- Controversial issues, 7-9, 157
- Cooperation, educational, 201, 293
- Crime, 151-53
- Criteria of emotional maturity, 97-99
- Crying, 70
- Cultural antagonisms, 154
- Cultural patterns of behavior, 90, 99, 108, 139-40, 157, 193-95, 285-86, 289
- Culture,
 - influence on maturity, 95
 - interpretation of, 224-26
- Curiosity, frustration of, 236-37
- Curricula,
 - adaptation to mental hygiene, 289-90
 - appropriateness to abilities, 93, 230-34
 - appropriateness to needs, 93, 125-27, 214-30
 - content of, 93, 212-14
 - differentiation of, 207-8, 234
 - diversification of, 246-50
 - evolution of, 206-12
 - lack of integration in, 240-32
 - misallocation of reading, 231-32
 - motivation of, 125-26, 234-38
 - organization of, 239-42
 - personal relations as content, 290
 - place of arts in, 224-27, 289
 - relation to integrative needs, 125-27, 217-30
 - relation to patterning of emotion, 202-4, 280, 289-90
 - relation to physiological needs, 214-16

- relation to status needs, 216-17
- validation of, 125-27, 242, 289-90
- Day-dreaming, 129
- Delight, 71-72
- Delinquency, 151-53
- Dependence, 122
- Desire, to spend, 144
- Desires, 4, 7, 48, 60
- Despair, 21, 23, 27
- Development,
 - affective, 94, 285-88
 - irregularity of, 131, 248-50
- Diagnosis of needs, 200, 227-28, 287
- Differences in temperament, 58, 198, 282-83
- Differentiation, attitudes formed by, 82
- Disabilities in children, 129-30, 245-46
- Discipline, 245, 261-62
- Disease, heart, 143
- Distress, 20, 71-72
- Education,
 - differentiative function of, 140, 193-95
 - findings significant for, 183-93
 - for peace, 156
 - integrative function of, 140, 155, 193-95, 224-26, 239-42, 289
 - objectives of, 42, 87-88, 93, 135-37, 157, 181-82, 193-94, 202, 206, 217, 223, 285, 289
 - obligation of, 135-38
 - of the emotions, 59, 87-89, 93, 108-9, 135-38, 202-5, 280
 - personnel problems in, 252-53, 280-81, 290-93
 - popular demand for, 208-9
 - professional personnel in, 195-96, 203, 229-30, 252-67, 272-78, 280-81, 290-93
 - religious, 228-30
 - role in emotional maturation, 108-9, 288-91
 - social objectives of, 42, 88, 139-41, 157, 192-93, 201-2, 211, 222-26, 285, 289
 - to prevent crime, 153
- Educational administration, 243-51, 254-63, 290-91
- Educational controversies, 7-9
- Educational experimentation,
 - in aesthetics, 224-28, 289
 - in first grade, 232
 - in personnel work, 203-4, 253, 263, 266, 279-80, 290-93
 - in satisfaction of needs, 200-204, 215-18, 278-79, 289-91
- Educational implications of affective phenomena, 193-96
- Educational methods, 7, 29, 93, 125, 137-38, 194-95, 234-42, 261-63, 289-91
- Ego needs, 113, 118-25, 147, 187, 217, 230, 261, 286-87
- Electrical potentials in brain, 54-55, 58
- Emotion,
 - action, 21
 - and earlier experience, 25
 - and health, 28
 - and higher mental processes, 36
 - appetite for, 153
 - as adjustive behavior, 17, 24, 30, 58-59, 183
 - as disorganized behavior, 76-77
 - as dynamic behavior, 77-80, 184
 - as instinct, 63-64, 79
 - caused by blocked behavior, 75-76
 - caused by thwarting, 26
 - causes of depressing, 27
 - causes of disintegrative, 29
 - causes of mild, 18-20
 - causes of strong, 24-28
 - complex causation of, 27
 - cortical control of, 53-57
 - cortical interpretations preceding, 25, 36
 - crisis nature of strong, 21
 - dangers from strong, 28
 - depressing, 21-23
 - disintegrative, 24, 29
 - effect on health of strong, 24
 - facial expression during, 64-65
 - fallacies associated with, 17-18
 - in education, 3, 4-5, 29, 93
 - instinctive aspects, 79
 - joy, 22, 24, 26
 - level of intensity of, 18, 20, 22-24, 29-30, 57-58, 77, 170, 172, 179, 283-85
 - mild, 18-19, 28, 47, 77, 170, 172, 175, 179, 183, 283-84
 - of minority groups, 155
 - physiological changes during depressing, 23
 - physiological changes during disintegrative, 29
 - physiological changes during joy, 23
 - physiological changes during mild, 19
 - physiological changes during sexual, 22

S U B J E C T I N D E X

- physiological changes during strong, 22
- physiological effects of, 30
- psycho-galvanic indication of, 170-71
- relation to body dynamics, 18-31, 49-52, 56, 59, 115-16, 134-35, 149, 163-64, 183, 198-99, 250, 282-83
- relation to body dynamics of strong, 24
- relation to needs, 27, 31, 47, 51-52, 59, 77-78, 95, 108, 111-26, 135, 156, 183-89, 198-99, 235-36, 253-54, 286-87, 290-92
- significant findings about, 183-93
- strong, 21-29, 31, 48, 51-52, 59, 93, 135-36, 156, 169, 172-73, 179, 183, 283-84
- tonic affect of mild, 19-20, 47, 175
- usual definition of, 17
- vocal expression of, 64
- Emotional behavior,
 - control of, 7, 34-35, 101
 - control of by attitudes, 36
 - differentiation of, 71-73
 - evaluation of, 4, 202-5, 285-86
 - influence of maturation on, 68-70, 73
 - influenced by physiological gradients, 56-57
 - lack of fixed patterns of, 76-77
 - of neonates, 65-67
 - patterning of, 17, 62-67, 74, 79-80, 184, 202-5, 285-86
 - trainability of, 59, 74, 93, 135-38, 183-84, 202-4, 285-86
- Emotional catharsis, 102-4, 227, 289
- Emotional climate of classrooms, 47, 194-95, 235-38, 244-45, 250, 262-63, 271-72, 289-91
- Emotional conflict, role in creativeness, 104, 284
- Emotional conflicts of teachers, 252-53, 266, 276-77, 291-92
- Emotional control, 7, 34-35, 101
- Emotional deviates, 108, 135-38, 180, 280, 286
- Emotional effects of competition, 132, 148
- Emotional experience, need for, 119
- Emotional lability,
 - influence on learning, 178-79, 265
 - physiological basis of, 57-58, 282-83
- Emotional maturation, role of education in, 108
- Emotional maturity,
 - criteria of, 7, 97-99
 - definition of, 97
 - scales of, 101
- Emotional tension due to personal relations, 276-78
- Envy, 20
- Ethics, 44-46, 98, 104-8, 189-91, 228-30
- Ethnic problems, 153
- Evaluation,
 - of attitudes, 205-6, 287-88
 - of curricula, 214-34, 289-90
 - of emotional behavior, 4, 202-5, 285-86
 - of energy structure, 198-99
 - of individual differences, 207-8
 - of needs, 112, 199-202, 227-28, 286-87
- Evolution, social, 100
- Excitement, 20, 71, 143
- Experience,
 - appropriateness of, 247-49
 - as basis of attitudes, 81-85, 89-90, 108, 119-22, 194-95, 205-6, 218, 222-25, 287-88
 - influence on motivation, 235-36
 - lack of in teachers, 265
 - need for, 119-21, 187-217, 224
 - needs developed by, 111
 - neglect of aesthetic, 224-28
 - relation to creativeness, 103
 - relation to symbolization, 218-21
- Experimentation needed,
 - aesthetic, 90-93, 104, 224-28, 284, 289
 - in adaptation of curricula for mental hygiene, 289-90
 - in curriculum validation, 242
 - in education, 92-93, 127, 137, 155, 197, 288-93
 - in education of women, 222
 - in educational administration, 290-91
 - in emotional re-education, 204
 - in personal relations as curricular material, 290
 - in personnel work, 203-4
 - in promotion of mental hygiene by
 - aesthetic expression, 289
 - in pupil classification, 249
 - in religious education, 229-30
 - in satisfaction of needs, 200-2
 - in selection of teachers, 278-79, 292-93
 - in training of teachers, 278-79, 292-93
 - with activity program, 233
 - with differentiated curricula, 234
 - with flexible schedules, 245

- Experimentation, plans for, 6, 282-93
- Eye-strain, 134
- Facial expression during emotion, 64-65
- Failure, 118, 123, 130-31, 147-48, 166-67, 189, 216, 220, 227, 230-33, 235, 238
 - in first grade, 231-33
 - influence on learning, 166-67
- Failures, diagnosis of, 238
- Faith, role of, 228
- Family life, training for, 221-22
- Fatigue,
 - and emotion, 134
 - and work output, 14-15
 - in teachers, 250-51
 - influence on learning, 244-45
- Favoritism in appointment of teachers, 257
- Fear, 20-21, 24-25, 68-70, 136, 261-62
 - patterns of, 64
- Federal aid, 260
- Feeling,
 - and behavior, 10, 13-16
 - explanation of, 12
 - Herrick's theory of, 12
 - influence on learning, 10
 - Nafe's theory of, 12
 - relation to body dynamics, 11, 13-14, 16
 - relation to meaning, 10, 13
 - relation to sensation, 10
 - Troland's theory of, 11
- Freedom in education, 7, 196, 209-10, 224, 261-63
- Frustration,
 - and crime, 152-53
 - by reality, 120-33
 - in competition, 147-48
 - of curiosity, 236-37
 - of needs, 112, 204-5, 254-55
 - of wants, 144
 - sexual, 116
 - social, 155
 - toleration of, 228
- Ganga, 152
- Generalization, 39-40, 45, 60, 80, 86, 121, 189, 218
- Gifted children, 233
- Goals, personal, 124, 131
- Gradients,
 - of electrical potential in brain, 54-58
 - physiological, 161
 - within cells, 54
 - within organs, 55
 - within the brain, 57
- Grief, 21, 23, 27
- Group norms as individual goals, 233-34
- Grouping, homogeneous, 246-50
- Growth,
 - influenced by physiological gradients, 55
 - irregularity of, 131-32, 248-49
- Guidance, educational, 195-96, 201, 203, 207-8, 217, 221, 228-29
- Habituation, 75
- Health,
 - and emotion, 28
 - influence of attitudes on, 45
- Home making, training in, 221-22
- Homes, unstable, 152-53
- Homogeneous grouping, 246-50
- Hunger, 30-31
 - sexual, 32
- Hypothalamus, 25, 53, 57
- Ideals, 44-45, 60, 80, 88-89, 102, 104-8, 122, 147, 153, 189-91, 205-6, 226, 228-30, 266, 287-88
 - sources of, 267
- Identification, attitudes formed by, 82
- Imagination, creative, 91-92, 103
- Imitation, attitudes formed by, 82-83
- Immaturity, causes of, 189
- Implications, educational,
 - of affective phenomena, 47, 193-96
 - of ethnic problems, 155
 - of feelings, 16
 - of illness, 135
 - of mild emotions, 21
 - of needs, 126-27
 - of role of attitudes, 48
 - of strong emotions, 29, 48
 - of value concepts, 107
- Incentive, influence on learning, 162-65
- Individual differences,
 - measurement of, 136, 197-208, 231-33, 285-87
 - provision for, 126, 136, 195, 211, 216-17, 220, 231-34, 245-50, 289-91
- Individual, rights of, 209-10
- Individuality, 124
- Indoctrination, 8, 81, 87, 157, 194, 263-64
- Industry,
 - attitudes in, 151
 - morale in, 149-50
- Infection, psychic, 134, 146, 266, 279-80

S U B J E C T I N D E X

- Inferiority,
 - feelings of, 128-32
 - organic, 130
- Inhibition of learning, 169
- Insecurity,
 - economic, 146, 149-51, 258-60
 - of teachers, 257-58
- Instinct, emotions as, 63-64
- Integration,
 - attitudes formed by, 81-85
 - education for, 108, 125-27, 193-95, 202-3, 217-30, 239-42, 289-91
 - menaced by conflicting attitudes, 41, 106-7, 205
 - need for, 43-47, 104-8, 118-25, 187-89
 - of society, 42, 104-8, 140, 192, 194
 - physiological during emotion, 24, 59
 - role of faith in, 104-7, 187-89, 228-30
- Intelligence, 123, 130, 173, 220-21, 230-32, 238, 246-49
- Interdependence, social, 142, 147, 210
- Interest, frustration of, 237
- International anarchy, 155-56
- Invention, 141
- Isolation, social, 117-18, 128-30, 145-46, 268-71
- James-Lange Theory, 33, 53
- Jealousy, 128, 132, 269
- Joy, 26
 - active, 22
 - causes of, 26
 - passive, 21
 - strong, 21-23
- Labor, conditions of, 149-51
- Language, development of, 121, 218-19
- Leadership, 87, 268-71
- Learning,
 - essential characteristics of, 159-61
 - influence of affect during, 167-76, 179, 237, 243-45
 - influence of affective associations, 170-73, 179, 235-36
 - influence of climate, 175
 - influence of complexity, 173-74
 - influence of failure, 166-67
 - influence of mood, 125-26, 166-67, 200, 236-37, 243-45
 - influence of music, 174-75
 - influence of odors, 173-77
 - influence of persons, 175-76
 - influence of praise, 166-69, 176-77
 - influence of punishment, 167-69, 176-77, 180, 243-45
 - influence of reproof, 168-69, 176-77
 - influence of temperament, 178-79
 - influence of time limit, 174
 - kinds of, 159
 - laws of, 161-62
 - overemphasis on linguistic, 218-21, 239-40
 - physiological basis of, 160-61
 - rate of, 163-65
 - role in emotional behavior, 74
 - role of motivation, 125-26, 162-65, 169, 179, 200, 213, 234-38, 244-45
- Likeness to others, need for, 117-18, 129-30, 153-55, 245-46
- Loyalty, 9, 60, 104-6, 124, 228-29
- Loyalty oaths, 265
- Lying, 129
- Maladjustment,
 - among teachers, 252-53, 265-67, 291-92
 - causes of, 127-34, 142-56, 189, 218
 - definition of, 46
 - sexual, 32
- Marks, 233
- Marriage,
 - delayed, 144
 - of teachers, 254-56
- Mathematics, 219
- Maturation,
 - different rates of, 131, 248-49
 - influence on affective behavior, 68-70, 73
 - of personality, 7, 111, 123-26, 185, 188-89, 199, 202-5, 228-29, 285-90
 - research about, 101, 199
 - role of education in, 108
- Maturity,
 - aesthetic, 102-3
 - criteria of affective, 7, 97-99
 - definition of affective, 97
 - emotional, 7, 94
 - emotional of teachers, 256
 - of behavior, 95
 - of erotic behavior, 101
 - role of attitudes in, 104-5, 190-91
 - social, 117-22
- Meaning of life, 44, 107, 124, 228-30
- Meaning of situation as cause of emotion, 25, 28
- Measurement, educational, 126

- Measurement of individual differences, 207-8
- Mechanism of cortical control of emotions, 53-57
- Mental ages in first grade, 232
- Mental conflict, 26, 205
 - See*, Conflicts, emotional
- Mental deficiency, 130
- Mental disorders, caused by disintegrative emotion, 29
- Mental hygiene in education, 110, 222-23, 252-53, 265-67, 289-92
- Metabolism,
 - in children, 198
 - relation to emotion, 49, 56
- Methods, educational, 7, 29, 93, 125, 137-38, 194-95, 234-42, 261-63, 289-90
- Mood, influence on learning, 125-26, 166-67, 200, 236-37, 243-45
- Moral behavior, basis of, 45-46
- Morale,
 - in industry, 149-51
 - maintenance of, 102, 227
 - of teachers, 258, 261-65
 - school, 47, 194-95, 235-38, 244-45, 250, 261-65, 271-72, 289-91
- Motion pictures, influence on attitudes, 85
- Motivation,
 - and self-interest, 163
 - influence on learning, 125-26, 162-65, 169, 179, 200, 213, 234-38, 244-45
 - insight into, 223
 - of school tasks, 234-38
 - relation to experience, 241
 - relation to needs, 163, 235-36, 238
- Motives,
 - attitudes as, 38
 - relative strength of, 164
- Music, influence on learning, 174-75
- Nationalism, 156
- Needs,
 - as basis of behavior, 78-80, 95, 111, 138
 - as motivation, 163, 213-14
 - categories of, 113, 185
 - cultural basis of, 114
 - diagnosis of, 112, 200, 227-28, 286-87
 - educational implications of, 194-95, 200-204, 215, 289-91
 - ego, 113, 118-25, 129-30, 147, 152-55, 187, 217-30, 261, 286-87
 - for activity and rest, 115, 135, 143, 256, 257
 - for affection, 117, 128, 132, 152-53, 255
 - for belonging, 117, 128-32, 145, 152-55, 216-17, 231, 247-49, 257, 278-79
 - for contact with reality, 113, 118-20, 133, 187, 195, 217-24, 287
 - for function, 115, 135, 143, 246-56
 - for harmony with authority, 120
 - for likeness to others, 117-18, 129-30, 153-55, 245-46
 - for materials and conditions, 114
 - for self-direction, 122, 245
 - for sense of worth, 124, 129-30, 145-47, 152-55
 - for status, 113, 116-18, 186, 216-17, 247-49, 267-69, 278-79
 - for success, 123, 130-31, 144, 216
 - for symbolization, 121-22, 187, 239-40
 - frustration of, 112, 127-34, 138, 192
 - health, 214
 - influence on motivation, 163, 235-36, 238
 - influence on personal relations, 276-77
 - integrative, 113, 118-25, 129-30, 147, 152-55, 217, 226, 230, 239, 241-42, 261, 286-87
 - interrelationship of, 114, 199
 - of teachers, 253-65
 - physiological, 31, 113-16, 146, 149-50, 186, 214-16
 - relation to affect, 27, 31, 47, 51-52, 59, 77-78, 95, 108, 112, 135, 156, 183-89, 198-99, 235-36, 253-54, 286-87, 290-92
 - research about, 199-202, 286-87
 - sexual, 116, 133
 - sources of, 111
- Neonates,
 - emotional behavior of, 65-67
 - psycho-galvanic reactivity of, 73
- Norms, group as individual goals, 233-34
- Objectives,
 - of education, 42, 87-88, 93, 135-37, 157, 181-82, 193-94, 202, 206, 217, 223, 285, 289
 - of report, 4, 182
 - social of education, 42, 88, 139, 157, 192-93, 201-2, 211, 222-26, 285, 289
- Odors, influence on learning, 173, 177
- Opinion, public, 85-86
- Overstimulation, 142-44
- Patterning,
 - lack of in emotions, 76-77

SUBJECT INDEX

- of affective behavior, 17, 62-67, 74, 79-80, 184, 202-5, 285-86
- Pensions, 258
- Personal relationships,
 - in schools, 269-72, 276-78
 - types of, 267-69
- Personalities,
 - incompatible, 243
 - valence between, 269
- Personality,
 - attitudes as core of, 41, 44, 47, 60-61, 95, 105, 108, 153, 189-91, 205-6, 226, 287-88
 - integration of, 43-47, 104-8, 118-25, 187-92, 217-30, 239-42, 289-91
 - maturation of, 7, 111, 123-26, 185, 188-89, 199, 202-5, 228-29, 285-90
 - permeability of, 125, 132, 185, 238, 248-49
- Personnel, professional in education, 195-96, 252-67, 291-93
- Personnel problems in education, 252, 265-67, 280-81, 291-93
- Philosophy, role of, 9
- Physical disorders caused by emotion, 28
- Physiological basis of emotional lability, 57-58, 198-99, 282-83
- Physiological changes,
 - during depressing emotion, 23
 - during disintegrative emotion, 29
 - during joy, 23
 - during mild emotion, 19
 - during sexual emotion, 22
 - during strong emotion, 22
- Physiological conditions,
 - relation to affective states, 18-30, 49, 52, 56, 59, 115-16, 134-35, 149, 163-64, 183, 198-99, 282-83
 - relation to learning, 161
- Physiological equilibria,
 - dynamic nature of, 50
 - essential to life, 50
 - evidence of relation to affect, 51-52
 - influenced by external conditions, 56
 - occur in gradients, 54
- Physiological gradients, 54-58, 161
- Physiological needs, 31, 114-16, 146, 149-50, 186, 214-16
- Pleasure in function, 14-16
- Praise,
 - influence before learning, 166-67
 - influence during learning, 130, 168-69
 - influence following learning, 176-77
- Prejudice, 38, 268
- Preoccupations, insight into, 227-28
- Pressure groups, 156-57, 263-64
- Prestige, 84
- Professional organization, 264-65
- Promotion, basis of, 247
- Propaganda, 81, 156
- Psychoanalysis, 113, 205
- Psycho-galvanic reactivity of neonates, 73
- Psycho-galvanometric studies, 170
- Psychological field, 77
- Psychological valence, 78
- Psychology,
 - educational, 17-18, 28, 200
 - industrial, 151
- Public support of education, 260-61
- Punishment, 243-44
 - influence on learning, 167-69, 176-77, 180
- Pupils,
 - behavior problems in, 110, 127-38, 200-205, 245-46, 278-80, 285, 287
 - evaluation of teachers, 272-75
 - relationships between, 278-80
- Racial problems, 153
- Rage, 64, 73
- Rapport, 264
- Reading, readiness for, 230-33
- Reality,
 - escape from, 227
 - generalization about, 121
 - need for contact with, 113, 118-20, 133, 187-88, 195, 217-24, 287
 - relation of attitudes to, 38
 - relation of behavior to, 95, 120
- Recall, influence of affect on, 170-74
- Recreation of teachers, 256-57
- Re-education,
 - of children, 136-38, 202-4, 238, 280
 - of emotions, 34
 - of teachers, 203, 266-67, 278
 - techniques of, 136-38, 202-4
- Regimentation, 243-46, 261-63
- Rejection, personal, 268-71, 278-79
- Relationships,
 - between pupils, 278-80
 - types of personal, 267-69
- Relaxation, practiced, 34-35
- Religion, 228-30
- Remorse, 21
- Reproof,
 - influence during learning, 168-69

- influence following learning, 176-77
- Research, cooperative, 201, 293
- Research needed,
 - in child development, 95-96, 197-206, 285-88
 - in education, 288-93
 - in evaluation of capacities, 221
 - in longitudinal studies of growth, 95-96, 197, 199, 285, 287
 - in measurement of attitudes, 205-6, 287-88
 - in measurement of emotional maturation, 285-86
 - in practiced relaxation, 35
 - in role of aesthetics in mental hygiene, 225-26, 289
 - in validation of needs, 199-202, 286
 - on affective effects of teaching load, 250
 - on affective maturation, 95, 100, 199
 - on basis of poise, 146
 - on behavior problems, 280
 - on behavior sequences, 96, 202-5, 285-88
 - on conditions within profession, 253-54
 - on development of meaning, 240
 - on diagnosis of needs, 204, 227-28, 286-87
 - on effects of competition, 148
 - on effects of stimulation, 144
 - on emotional appetites, 33
 - on energy structure, 198-99
 - on feelings, 10, 17
 - on frustration of curiosity, 237
 - on incidence of tension in classrooms, 242, 245, 250, 263
 - on influence of emotion on learning, 283
 - on influence of emotion on mental processes, 284
 - on influence of experience on concepts of value, 240, 287-88
 - on influence of supervisory policies, 263
 - on influence of teachers on children, 253, 266-67
 - on insecurity of teachers, 258
 - on maladjustment in teachers, 253, 291-92
 - on physical basis of temperament, 282-83
 - on physiological changes during emotion, 283
 - on recreation of teachers, 257
 - on rejection of school tasks as goals, 233
 - on relation of salary to maladjustment, 260-61
 - on role of attitudes in learning, 163
 - on role of emotion in aesthetic experience, 284
 - on role of emotion in aesthetic expression, 284
 - on sexual maladjustment, 32
 - on teachers' contracts, 256
- Research, plans for, 6, 282-93
- Responsibility, 123
- Rest, need for, 115
- Retardation, elimination of, 247
- Rivalry, family, 132
- Salaries of teachers, 258-60
- Scales, emotional maturity, 100
- Schedules, inflexibility of, 244-45
- Schools,
 - behavior problems in, 110, 127-38, 200-205, 245-46, 278-80, 285, 287
 - discipline in, 245
 - dominant influence in, 255-56
 - influence of pupils on pupils, 278-80
 - organization of, 243-51, 289-90
 - personal relations in, 269-72, 276-78
 - pressure groups in, 263-64
 - routine in, 237
- Science, influence on life, 141-42
- Security, lack of, 117, 128
- Selection of teachers, 277-78, 292-93
- Self,
 - organization of, 44-46, 104-8, 118-25, 187-92, 217-30, 239-42, 289-91
 - social role of, 107
- Self-expression through the arts, 226
- Selfhood, need for, 118, 124-25, 187
- Self-interest, 60-61, 89, 124
- Self-preservation, 59
- Sex differences, 248-49
- Sex education, 215-16
- Sex taboos, 133
- Sexual needs, 116, 133
- Shock, emotional, 18
- Skills, teaching of, 213-14
- Smiling, 69
- Social basis of needs, 116
- Social change, 141-42, 157, 192, 208-9, 225-26
- Social cleavages, 153-55
- Social distance, 154
- Social evolution, 211
- Social groups, structure of, 270-71
- Social interdependence, 210

SUBJECT INDEX

- Social mores, 43
- Social needs, 27, 113, 116-18, 155, 186, 216-17, 247-49, 267-69, 278-79
- Social objectives of education, 42, 88, 139, 157, 192-93, 201-2, 211, 222-26, 285, 289
- Social problems, 139, 142-56, 192
- Social processes, changes in, 141-42
- Social studies, 219, 223
 - aesthetics in, 225-26
- Society,
 - competition in, 147-49
 - crime and delinquency in, 151
 - differentiation within, 42, 140
 - frustration in, 144
 - insecurity in, 146
 - integration of, 42, 140
 - labor conditions in, 149-51
 - racial problems in, 153-55
 - role of education in, 139-41, 157, 181, 193-94, 201-2
 - tempo of, 143,
 - trends in, 141-42
 - uprootedness in, 145
- Sorrow, 27
- Special classes, 246
- Startle,
 - causes of, 24-25
 - mild, 20
- Stigmata, 129
- Subject matter, organization of, 239-42
- Sublimation, 32, 46, 96, 134
- Success, need for, 123, 130-31
- Suggestion, 82-84
- Summary of findings, 183-93
- Super-ego, 124, 131
- Supervision, 261-63
- Surprise, 20
- Symbolization,
 - and attitudes, 45
 - need for progressive, 121-22, 187, 218-20, 239-40
- Sympathy, 269
- Tardiness, 243-44
- Teachers,
 - apprenticeship of, 196, 203
 - as personnel workers, 195-96, 203, 229, 250, 279, 290-92
 - best-liked, 272-75
 - characteristics of, 255-56, 272-75
 - conditions of employment of, 254-56
 - fatigue in, 250, 253, 256-57
 - freedom of, 196, 254-56
 - function of, 279
 - influence on children, 260, 266-67, 290
 - insecurity of, 263-64
 - least-liked, 272-75
 - mental illness among, 252-53, 265-67, 291-92
 - needs of, 253-65, 276, 291-92
 - occupational insecurity of, 257-58
 - professionalization of, 264-65
 - recreation of, 256-57
 - re-education of, 266-67
 - salaries of, 258-60
 - selection of, 277-78, 292-93
 - tenure of, 257-58
 - training of, 195-96, 203, 277-78, 292-93
- Teaching load, 250-51
- Techniques of supervision, 261-63
- Temperament, 265
 - influence on learning, 178-79
 - types of, 58
- Tempo of growth, 131
- Tension,
 - emotional, 110, 136
 - incidence of in classrooms, 242
 - relieved by rest, 115
- Tests,
 - objective, 210-33
 - of intelligence, 207-8, 238
 - thematic apperception, 200
- Thwarting, 26
 - causes of, 26
- Time allotments, 244-45
- Tolerance, 223
- Training, vocational, 221-22
- Trauma, attitudes formed by, 82
- Unemployment, 146
- Uprootedness, 145
- Valence,
 - between personalities, 269-70
 - psychological, 78
- Value concepts, integrative role of, 41, 46, 60-61, 95, 105, 108, 153, 189-91, 205-6, 226, 287-88
- Visual aids, 219-20
- Vocal expression of emotion, 64
- Vocational training, 221-22
- Wants, increase of, 144
- Weaning, psychological, 123
- Weltanschauung*, importance of, 45-60
- Women, training of, 221-22
- Youth organizations, 229

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